ICF-CD1000

SERVICE MANUAL

Ver 1.1 2001.07

US Model
Canadian Model
AEP Model
UK Model
Singapore Model
Tourist Model

Model Name Using Similar Mechanism	D-232
Optical Device Name	KSM-331AAN (S)
Optical Pick-Up Name	KSS-331A

SPECIFICATIONS

CD player section

System: Compact disc digital audio system
Laser diode properties: Material: GaAlAs
Wavelength: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 µW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7mm aperture.)
Frequency response: 20-20,000 Hz $^{+1}_{-1.5}$ dB
Wow and flutter: Below measurable limit

Radio section

Frequency range:
US, Canadian model

Band	Frequency	Channel Step
FM	87.5-108 MHz	0.1 MHz
AM	530-1,710 kHz	10 kHz
FM	87.5-108 MHz	0.05 MHz *
AM	531-1,710 kHz	9 kHz

AEP, UK, Italian model

Band	Frequency	Channel Step
FM	87.5-108 MHz	0.1 MHz
AM	530-1,610 kHz	10 kHz
FM	87.5-108 MHz	0.05 MHz *
AM	531-1,602 kHz	9 kHz

Singapore, Tourist model

Band	Frequency	Channel Step
FM	76-108 MHz	0.1 MHz
AM	530-1,710 kHz	10 kHz
FM	76-108 MHz	0.05 MHz*
AM	531-1,710 kHz	9 kHz

* The frequency display is raised or lowered by steps of 0.1 MHz.
(Example: Frequency 88.05 MHz is displayed as "88.0 MHz.")

General

Time display:
24-hour system
Speaker: Full range: 4 cm + 4 cm ($1\,^{5}/_{8} \times 2$ inches) 8 ohms
Output:
Ω jack (stereo minijack)
Power outputs: 300mW + 300mW (at 10% harmonic distortion)
Power requirements:
6V DC, four R6 (size AA) batteries
Backup for Clock:
3V DC, one CR 2025 lithium battery
External power source:
DC IN 6V
Dimensions: Approx. 166.5×46×162 mm (w/h/d)
(Approx. $6\,^{5}/_{8} \times 1\,^{13}/_{16} \times 6\,^{1}/_{2}$ inches) incl. projecting parts and controls
Mass: Approx. 705.5g (1lb 9oz) incl. batteries
Supplied accessory: Stereo headphones (1)
AC power adaptor (1) (except for UK model)
AC plug adaptor (1) (Tourist model)
Sony CR 2025 Lithium battery (1)
Dry batteries (4) (Tourist model)

Design and specifications are subject to change without notice.

FM/AM CD CLOCK RADIO

9-923-003-12
2001G0500-1
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Sony Corporation
Personal Audio Company
Shinagawa Tec Service Manual Production Group

SONY®

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Before Replacing the Optical Pick-Up Block

Please be sure to check thoroughly the parameters as par the "Optical Pick-Up Block Checking Procedures" (Part No.: 9-960-027-11) issued separately before replacing the optical pick-up block.
Note and specifications required to check are given below.

- FOK output: IC501⑫ pin
  When checking FOK, remove the lead wire to disc motor.
- S curve P-to-P value: 1.2 Vp-p IC501 ⑬ pin
  When checking S curve P-to-P value, remove the lead wire to disc motor.
- Adjusted part for focus gain adjustment: RV504
- RF signal P-to-P value: 0.8-1.3 Vp-p
- Traverse signal P-to-P value: 0.7-1.8 Vp-p
- The repairing grating holder is impossible.
- Adjusted part for tracking gain adjustment: RV503

Precautions for Checking Emission of Laser Diode

Laser light of the equipment is focused by the object lens in the optical pick-up so that the light focuses on the reflection surface of the disc. Therefore, be sure to keep your eyes more then 30 cm apart from the object lens when you check the emission of laser diode.

Laser Diode Checking Methods

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper panel is closed while turning ON the S501 (push switch type).
The following two checking methods for the laser diode are operable.

- **Method-1 (In the service mode or normal operation): Emission of the laser diode is visually checked.**

1. Open the upper panel.
2. Push the S501.
3. Check the object lens for confirming normal emission of the laser diode. If not emitting, there is a trouble in the automatic power control circuit or the optical pick-up.
   During normal operation, the laser diode is turned ON about 2.5 seconds for focus searching.

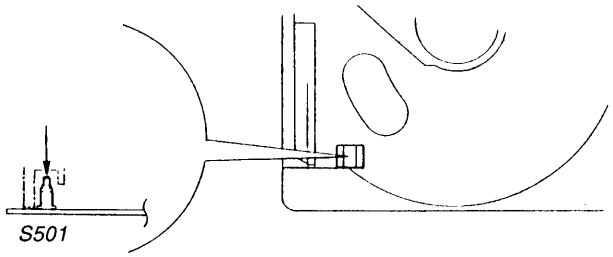
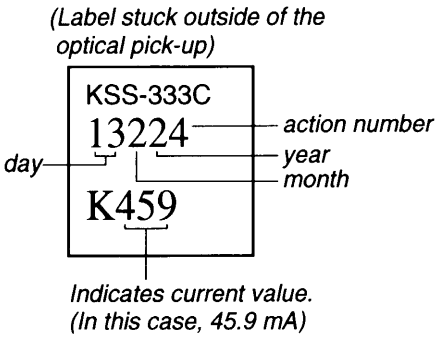


Fig. 1 Method to push the S501

- **Method-2 (In the service mode or normal operation): Check the value of current flowing in the laser diode.**

1. Remove the upper panel.
2. Read the current printed on the label attached on the rear side of the optical pick-up.



3. Connect a digital voltmeter as shown in Fig. 2.
4. Calculate current value by the reading of the digital voltmeter.
   Reading of the digital voltmeter (V) ÷2.2 (Ω) = current value (A)
   (Example) Reading of the digital voltmeter of 0.082 V:
   0.082 V÷2.2 Ω= 0.037 (A) = 37 mA

5. Check that the current value is within the following range.
   - Current value of the label $^{+5}_{-11}$ mA (25 °C)
     Variation by temperature: 0.4 mA/°C
     Current increases with temperature increased.
     Current decreases with temperature decreased.

   If the current is more than the range above, there is a trouble in the automatic power control circuit or the laser diode is in deterioration.
   If less than the range, a trouble exists in the automatic power control circuit or the optical pick-up.

– MAIN BOARD – (Side B)

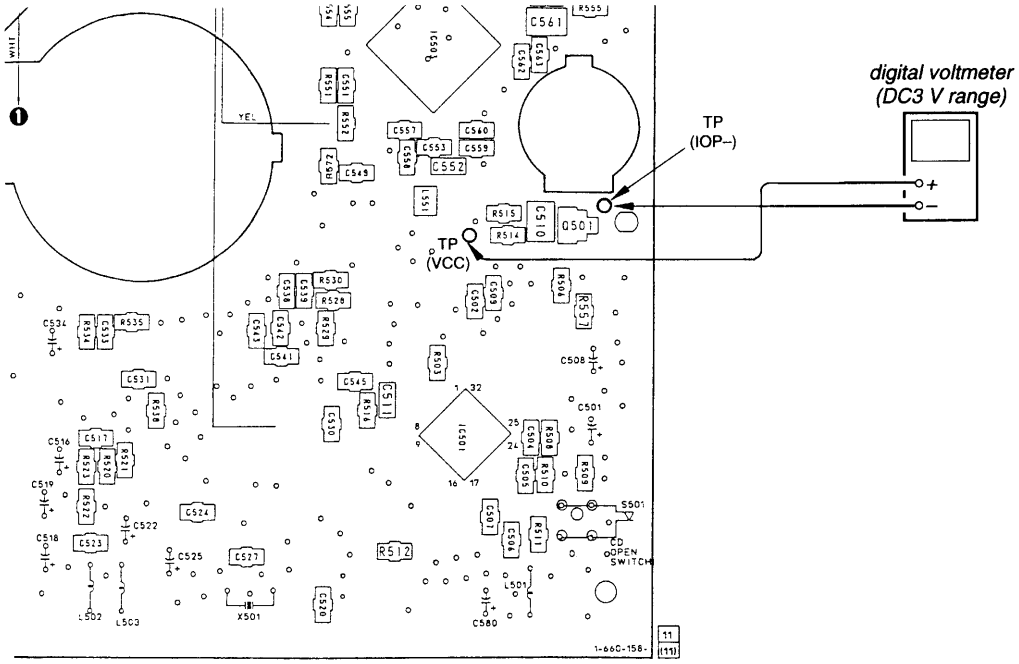
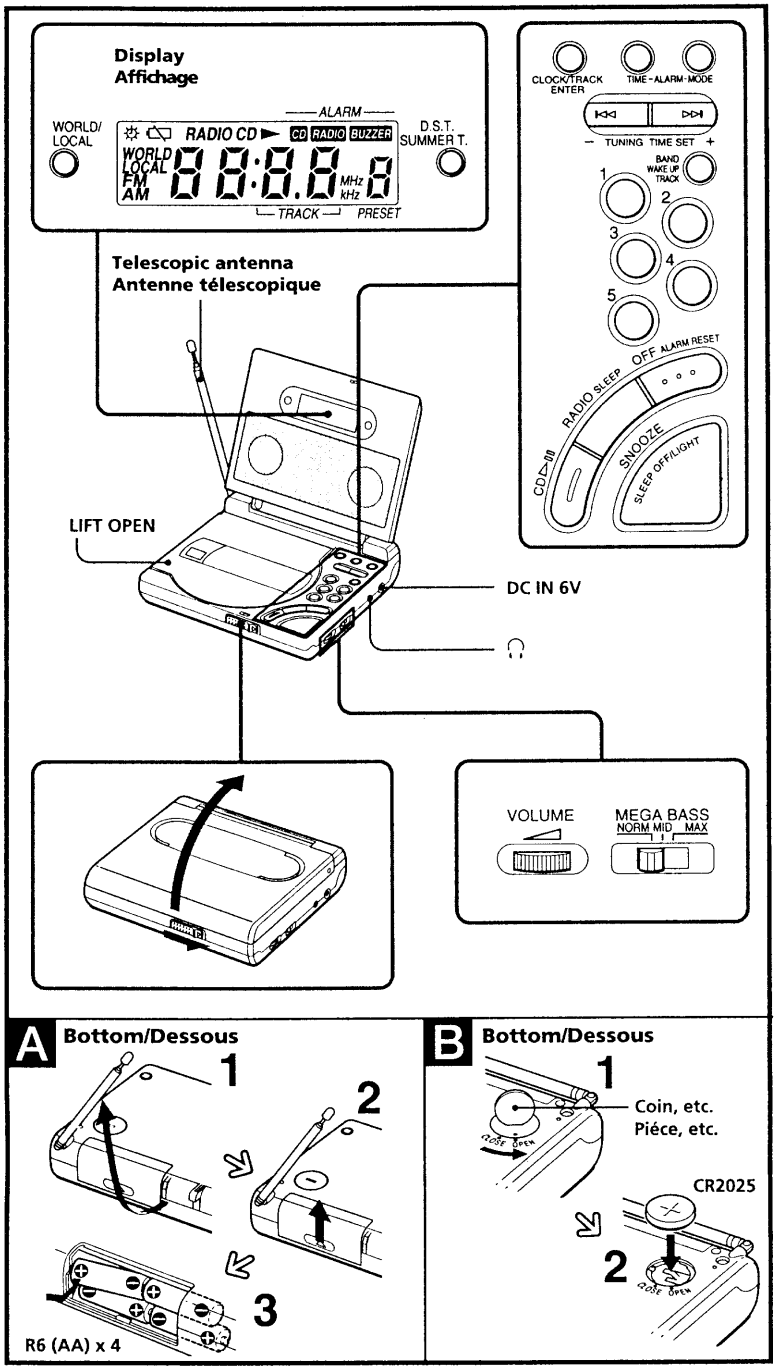


Fig. 2 Digital voltmeter connecting location



Features

- You can wake up to any track of a CD, radio and buzzer with the snooze function.
- The digital tuner with 5 random memory presets.
- A powerful bass is produced with the MEGA BASS sound system.
- You can enjoy stereo sound both by speakers and by headphones.
- Summer time calculation (one-hour skip function).
- World time calculation (parallel time-difference setting).

Notes on AM Channel Step

The AM channel step differs depending on areas. The channel step of this unit is factory-set to 10 kHz (models for North and South America)/ 9 kHz (models for other countries).

Area	Channel step
North and South American countries	10 kHz
Other countries	9 kHz

Power Sources

Installing Batteries

(Fig. A)

1. Lift up the telescopic antenna.
2. Push and slide up the battery cover toward the direction of the arrow.
3. Install four R6 (size AA) batteries with correct polarity.

Battery Life (Approx. hours)

Listening by speakers

	CD	RADIO
Sony LR6 (size AA)	9	26

Listening by headphones

	CD	RADIO
Sony LR6 (size AA)	11	40

Replacing Batteries

When the batteries become weak, "⌧" will appear in the display and the CD and Radio functions will stop. Replace all the dry batteries. When the batteries are exhausted, "⌧" will flash and only the clock is displayed.
After replacing the batteries or when the AC power adaptor is connected, the "⌧" indicator will stop flashing and then start the unit operations.

Note

When the unit is not being used for long period of time, remove the batteries to avoid damage from battery leakage and corrosion.

Installing Lithium Battery for Clock Backup (Fig. B)

1. The lithium battery compartment lid is at the bottom of the unit. Open the lid with a coin, turning it towards **OPEN**.
2. Install the lithium battery CR 2025 with the ⊕ facing upwards, close the lid turning it towards **CLOSE**.

Replacing Lithium battery

Replace the lithium battery when the LCD display becomes weak. Keep the dry batteries installed or the AC power adaptor connected to keep the memeory from being erased. Replace the lithium battery regularly once a year.

Notes on batteries

- Keep the lithium battery out of reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure good contact.
- Be sure to install the battery in the correct polarity position.
- Do not hold the battery with metallic tweezers, as doing so may casue a short-circuit.
- Do not break up the battery or throw it into a fire, which might cause it to explode. Carefully dispose of the used battery.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

Using House Current (Mains)

Connect the supplied AC power adaptor (except for UK model) to DC IN 6V, and plug it into a wall outlet. The batteries are automatically disconnected then the display will continuously light up and then operate the unit.

Notes

- When the AC power adaptor is not used for a long period of time, be sure to unplug it both from the DC IN 6V jack and from a wall outlet.
- Use the recommended Sony AC power adaptor only. The polarity of the plugs of other manufacturers may be different. Failure not to use the recommended AC power adaptor may lead to the malfunction of the unit.

Polarity of the plug

- When operating the unit with house currents, do not remove the lithium battery which serve as a backup of the memory.
- When operating the unit with the batteries, remove the AC power adaptor in the following order: ① disconnect from the wall outlet and ② disconnect from the DC IN 6V jack of the unit.

This section is extracted from instruction manual.

Setting the Clock

The display will flash "0:00" when the batteries are first installed. Set the time when the CD or radio is turned off.

To Set Local Time

1. Press **WORLD/LOCAL** to display "LOCAL".
2. While holding down **CLOCK/TRACK•ENTER**, press either **TUNING TIME SET +** or **–** till the correct time appears in the display.
   When you release **CLOCK/TRACK•ENTER**, the clock begins to operate and ":" flashes.

- 24-hour system: "0:00" = midnight. "12:00" = noon
- To set the current time rapidly, keep pressing the + or – button while holding down **CLOCK/TRACK•ENTER.**
- To set the current time from zero seconds, at step 2, release **CLOCK/TRACK•ENTER** with the time signal.

To Set World Time

To set WORLD time, press **WORLD/LOCAL** to display "WORLD", then set it, upon calculating the parallel time with the time-zone map, using the **CLOCK/TRACK•ENTER** and the **TUNING TIME SET +** or **–**, until the desired time appears.

If you change either of Local Time or World Time

The two clock's are not linked, adjust the time to either one.

To change the display to the day-light saving time (summer time) indication

Press **D.S.T.•SUMMER T.**
"☼" is displayed and the time indication changes to summer time.
To cancel the summer time indication, press **D.S.T.•SUMMER T.** again.

Changing AM Channel Step

The channel step of this unit is factory-set to 9 kHz or 10 kHz to match the frequency allocation system of the country as listed. When needed, change the channel step before listening to the radio.

Area	Channel step
North and South American countries	10 kHz
Other countries	9 kHz

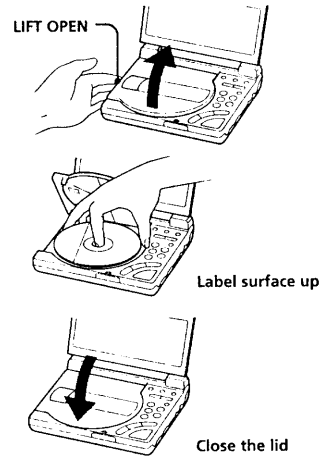
1. Press OFF ALARM RESET to turn off the power.
2. While holding down **CLOCK/TRACK•ENTER**, keep pressing **OFF ALARM RESET** until a beep sounds.
   The AM channel step will be changed.
   If you proceed to step 2 again, the channel step changes again.

- When the AM channel step is changed, the preset stations will be erased.

Playing a Disc

An 8 cm (3-inch) CD can be played without an adaptor.

1. Lift open the CD compartment lid and place a disc.



2. Press CD ▶II and the display lights "01." And the current number (01 to 99) appears in the display window. After 10 seconds, the indication becomes the current time, but the "CD ▶ " indication remains.
3. Adjust **VOLUME**.

Listening to the built-in speakers

The built-in speakers are located inside the lid of the unit. Open the lid to use the built-in speakers.

To	Press
Pause	CD ▶II
Resume play after pause	CD ▶II again
Locate the beginning of the current track (AMS*)	I◀◀**
Locate the next track (AMS)	▶▶I**
Go back at high speed	Hold down I◀◀**
Go ahead at high speed	Hold down ▶▶I**
Locate the previous track (AMS)	I◀◀ repeatedly**
Locate the succeeding track (AMS)	▶▶I repeatedly**
Stop play	**OFF ALARM RESET**
Change the clock mode or track mode	**CLOCK/TRACK•ENTER**

*AMS = Automatic Music Sensor

**These operations are possible during both play and pause.

•To handle compact discs
This way

Handle the disc by its edge.

Not this way

Do not touch the surface.

Do not stick paper or tape nor write anything on the surface.

Notes

- Do not open the CD compartment lid during playing, otherwise, the disc will be damaged. Be sure to stop the disc first.
- When you press CD ▶II, if there is no disc in the CD compartment, the "00" indication flashes for about 3 seconds and the unit will be turned off.
- If the CD alarm times comes during listening to the CD, the track changes to that preset by pressing **BAND•WAKE UP TRACK**.

Operating the Radio

Manual Tuning

1. Press **RADIO SLEEP**.
2. Press **BAND•WAKE UP TRACK** to select the band, **FM** or **AM**.
   Each press of **BAND•WAKE UP TRACK** changes the band.
3. Tune in a station by pressing **TUNING TIME SET +** or **–**.
4. Adjust **VOLUME**.

Listening to the built-in speakers

The built-in speakers are located inside the lid of the unit. Open the lid to use the built-in speakers.

- To turn off the radio, press **OFF ALARM RESET**.
- To improve radio reception
  FM: Extend the telescopic antenna to improve FM reception.
  AM: Rotate the unit horizontally for optimum reception. A ferrite bar antenna is built into the unit. Do not operate over a steel desk or surface, as this may lead to a interference of the reception.
- To check the station you are listening to, press **RADIO SLEEP**. The band and frequency appear for five seconds.

Preset Tuning

You can preset up to five FM/AM stations (one station for each memory preset button 1 to 5).

Note

When you use the radio alarm, preset the station you want for the alarm in memory preset button **1**, as the memory preset **1** station is the wake up station.

Example: To set AM 1260 kHz in memory presets button 2.

1. Tune in the AM 1260 kHz (See "Manual Tuning").
2. While holding down **CLOCK/TRACK • ENTER**, press the desired preset button. The preset number appears in the display and station is preset.

While "P" are flashing, press the preset button.

After presetting the indication become the current time.

- **To change the preset station,** preset a new station in the number of which you want to change the station. The previous station is cancelled.

Tuning in a Preset Station

1. Press **RADIO SLEEP**.
2. Press memory presets number button of the station you want to tune in.
3. Adjust **VOLUME**.

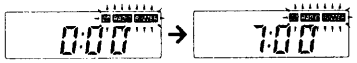
Setting the Alarm

You can set the CD, radio and buzzer alarms at the preset time. Before setting the alarm, be sure to set the clock. (See "Setting the Clock.")
After setting the alarm time, then set the type of alarm.

Setting the Alarm Time

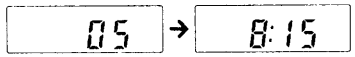
To set the CD alarm

1. While holding down **TIME-ALARM**, press **TUNING TIME SET +** or **–** till the desired time appears in the display.



When you release **TIME-ALARM**, the alarm time is set and the indication becomes the current time.

2. While holding down **BAND•WAKE UP TRACK**, set the desired track by pressing **TUNING TIME SET +** or **–**.
When you release **BAND•WAKE UP TRACK**, The track is preset and the indication becomes the current time.



Note

The CD player is preset to start with any track numbers, it will always start with the chosen track even though you change the CD, unless you change **BAND•WAKE UP TRACK**.

To set the RADIO/BUZZER alarm

1. While holding down **TIME-ALARM**, press either **TUNING TIME SET +** or **–** till the desired time appears in the display.
When you release **TIME-ALARM**, the alarm time is set and the indication becomes the current time.

Setting the Alarm Mode

Before setting alarm-mode, be sure to set the alarm time. (See "Setting the Alarm Time.")

1. Press **ALARM-MODE** till the alarm you want appears in the display.
Each time you press **ALARM-MODE**, the alarm indication changes as follows.

No alarm indication → CD → RADIO → BUZZER

The selected alarm sounds at the time you set, and automatically turns off after 60 minutes.

- To stop the alarm, press **OFF ALARM RESET**. The alarm will sound at the same time the next day.
- To cancel the alarm, press **ALARM-MODE** repeatedly until CD, RADIO, or BUZZER indication does not appear.
- To check the alarm time you set, press the **TIME-ALARM**.

Notes

- When you set the CD alarm, if there is no disc in the CD player, the buzzer will sound at the time you set.
- The buzzer sound level is fixed, and independent of volume.

To Doze for a Few More Minutes

1. Press **SNOOZE**. The CD, radio or buzzer will shut off but will automatically come on again after about 8 minutes. You can repeat this process as many times as you want to.

- While SNOOZE function is operating, the alarm indication flashes.

Setting the Sleep Timer

By setting the sleep timer, you can fall asleep to the radio sound. The radio turns off after the selected time.

1. Turn on the radio .
2. Press **RADIO SLEEP** repeatedly until the desired operating time is displayed.
Each time you press **RADIO SLEEP**, the sleep timer indication changes as follows.

90 → 60 → 30 → 15 → OFF
Frequency indication

The sleep timer is set and it will go off after the selected minutes.

- To turn off the sleep timer before the selected time has elapsed, press **SLEEP OFF/LIGHT**.

Useful Functions

To Obtain Powerful Bass

Set **MEGA BASS** to **MID** or **MAX**.
The "MEGA BASS" system produces a powerful bass with the use of a bass reflex system added to a normal speaker system.

To Light the Display-Light Function

Press **SLEEP OFF/LIGHT**, the display will light up for 10 seconds.
When using house currents, the display will light up always.

Precautions

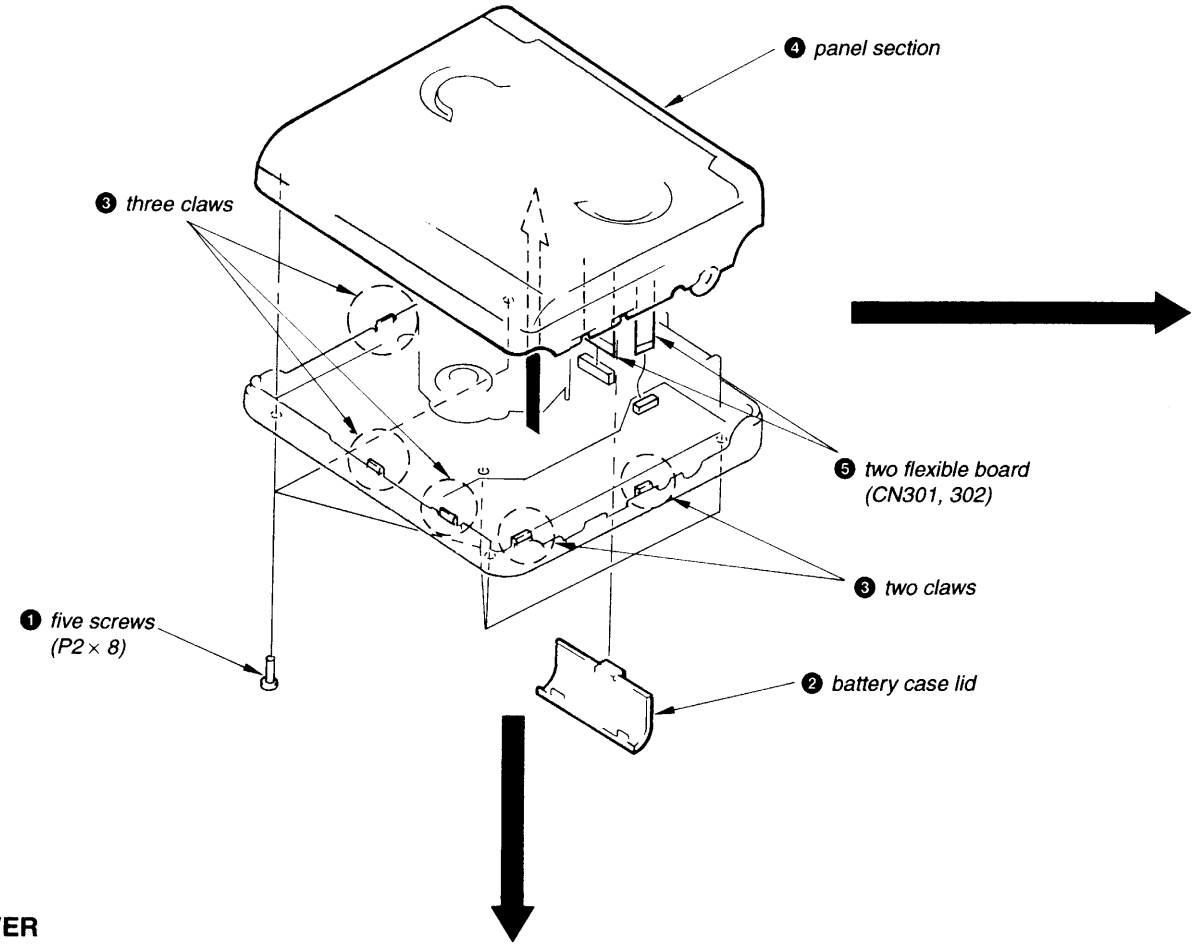
- Operate the unit on the power sources specified in "Specifications."
- The nameplate indicating voltage, etc. is located at the bottom.
- Disconnect the mains lead by grasping the plug. Never pull it by the cord.
- Do not leave the unit in a location near a heat source such as a radiator or airduct, or in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on a surface (a rug, a blanket, etc.) or near materials (a curtain) which might block the ventilation holes.
- Should any liquid or solid object fall into the unit, unplug (or remove batteries from) the unit and have it checked by a qualified personnel before operating it further.
- When the casing becomes soiled, clean it with a soft cloth dampened with a mild detergent solution. Never use abrasive cleansers or chemical solvents, as they may mar the casing.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.

If you have any question, please consult your nearest Sony dealer.

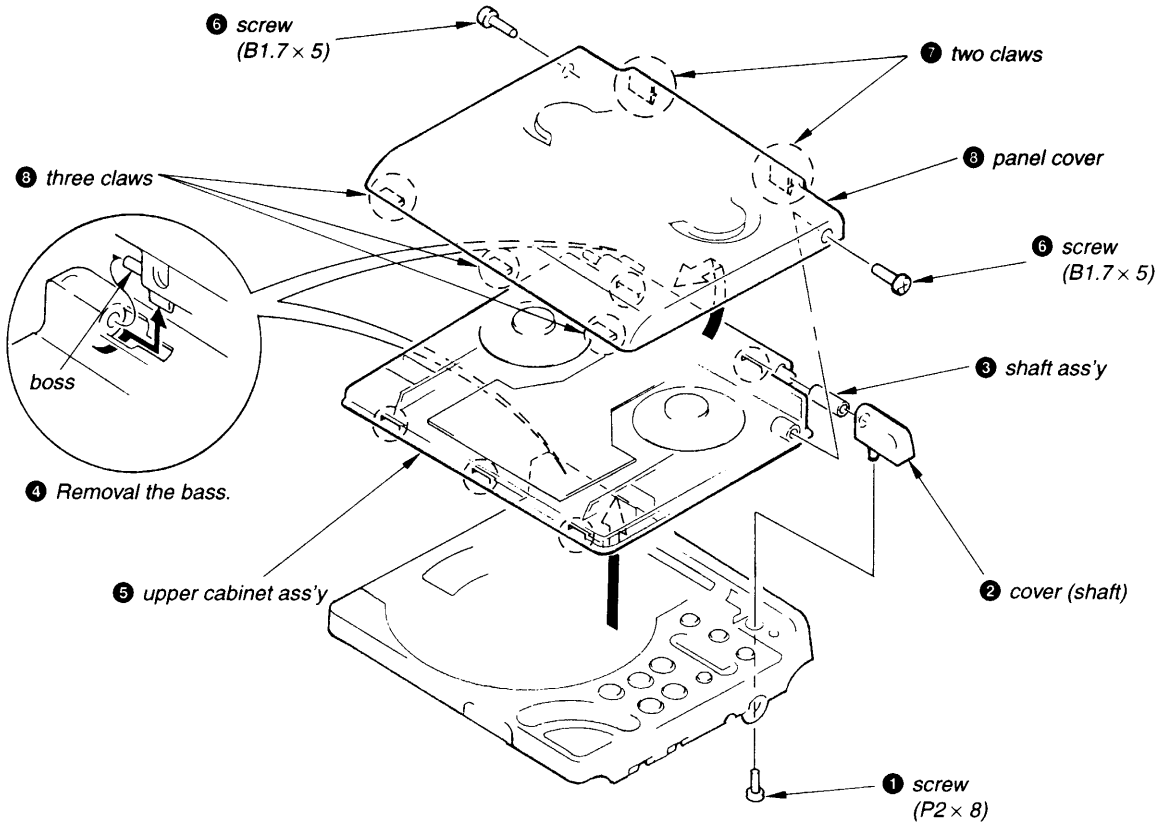
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

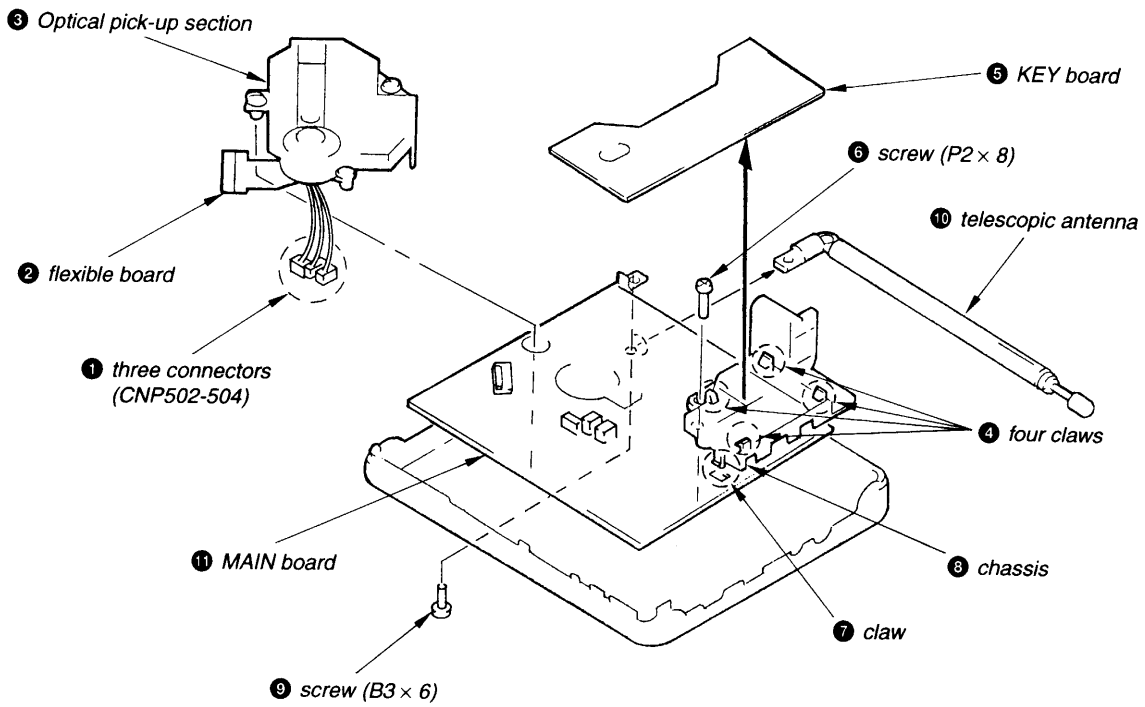
PANEL SECTION



PANEL COVER



MAIN/KEY BOARD



SECTION 4
SERVICE MODE

Service Mode (Service program)

The equipment is provided with a service program built in the microcomputer, like conventional models.
Service program operation methods are described in the following.

- **Step 1 (Service mode setting methods)**

method (1)

Solder across the CD TEST terminal.

Keep the S501 in continuously pressed state, power supply ON.

method (2) Power supply ON

Press [CD▶II] key while pressing keys, [▶▶I], [BAND WAKE UP TRACK] and [5]; the set enter to TEST MODE.

- **Step 2 (Operation in the service mode)**

1. Once the service mode is effected, the LCD displays 12 indications each of which is repeatedly displayed.
2. By pressing the ▶▶I or I◀◀ key, the optical pick-up is movable inwardly or outwardly. However, if this is activated, tracking servo and sled servo are turned OFF, so it can be turned ON by pressing the BAND WAKE UP TRACK key if required.
3. Without disc, focus searching is repeated continuously.
4. By pressing the BAND WAKE UP TRACK key, tracking servo, sled servo and CLV-A (servo in PLAY) are turned ON. Then playing begins. No muting is ON in the service mode.
5. By pressing the OFF key, all servos (focus, tracking and sled) are turned OFF. However, the disc motor revolves for a while by inertia.

- **Step 3 (Resetting of service mode)**

1. Be sure to disconnect the external power supply and remove the solder bridge at the CD TEST terminal connected before in setting.
2. The set thus becomes available for normal operation.

– LCD BOARD – (Side A)

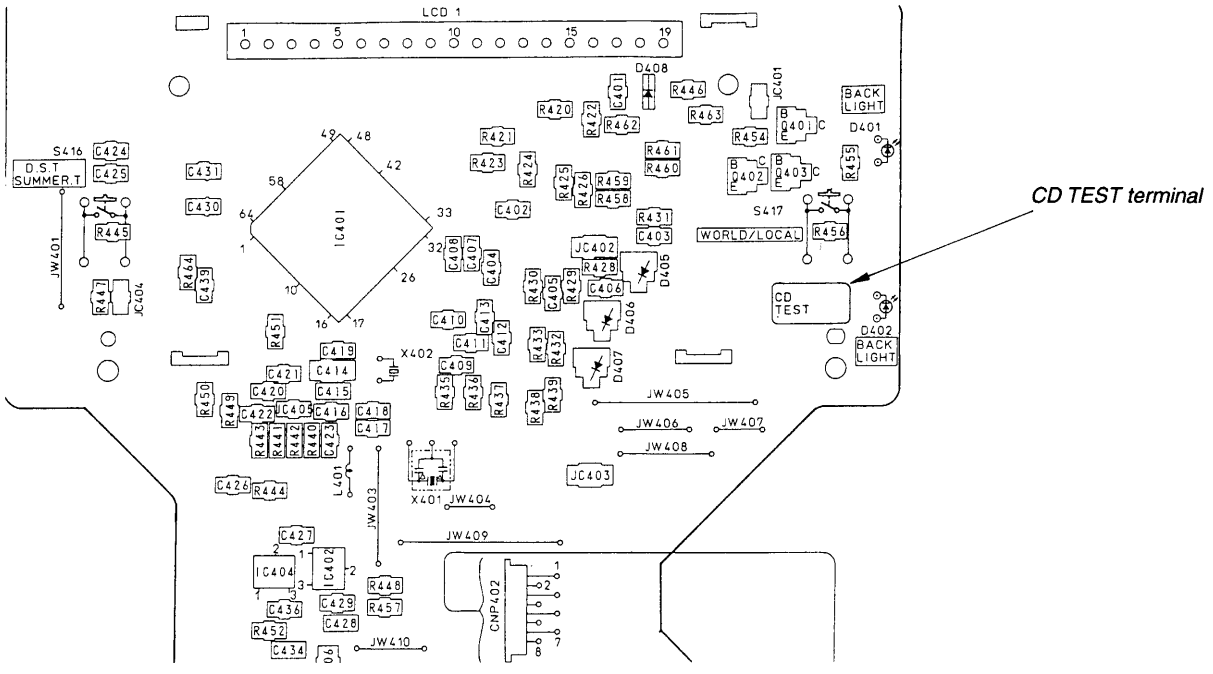
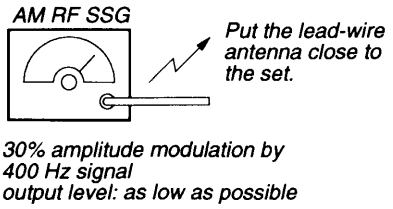


Fig. 3 Location of CD TEST terminal

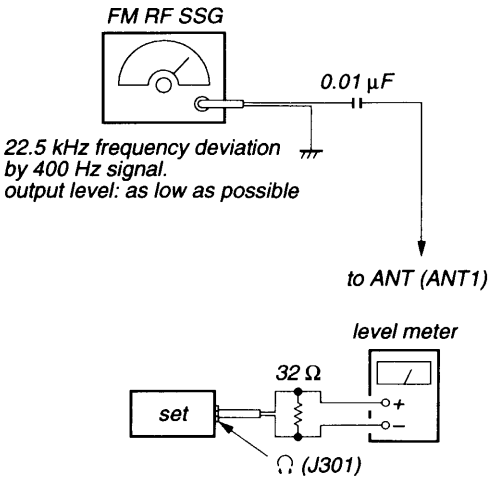
SECTION 5
ELECTRICAL ADJUSTMENTS

TUNER SECTION | 0dB=1 μV

[AM]
BAND switch: AM


AM RF SSG
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400 Hz signal
output level: as low as possible

[FM]
BAND switch: FM



- Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter.	
T1	450 kHz

AM FREQUENCY COVERAGE ADJUSTMENT		
Adjust for following values on digital voltmeter.		
Display indication	530 kHz (531 kHz)	1,710 kHz (1,602 kHz)
Digital voltmeter reading	2.5 V	9.5 V (9.0 V)
Adjustment part	L4	confirm

no mark: US, CND ( ): AEP, UK, IT, SP, JE

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L3	580 kHz (621 kHz) <585 kHz>
CT2	1,490 kHz (1,404 kHz) <1,485 kHz>

no mark: US, CND ( ): AEP, UK, IT < >: SP, JE

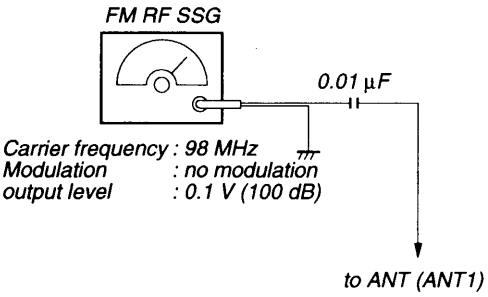
- Abbreviation
  CND: Canadian model
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

FM FREQUENCY COVERAGE ADJUSTMENT		
Adjust for following values on digital voltmeter.		
Display indication	87.5 MHz (76 MHz)	108.0 MHz (108.0 MHz)
Digital voltmeter reading	2.3 V <2.2 V>	11 V <11 V>
Adjustment part	L2	confirm

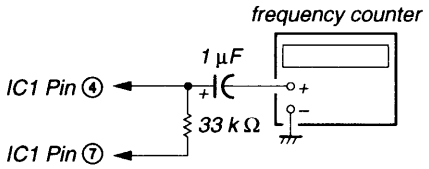
no mark: US, CND, AEP, UK, IT < >: SP, JE

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L1	87.5 MHz
CT1	108.0 MHz

FM VCO Adjustment
Procedure:

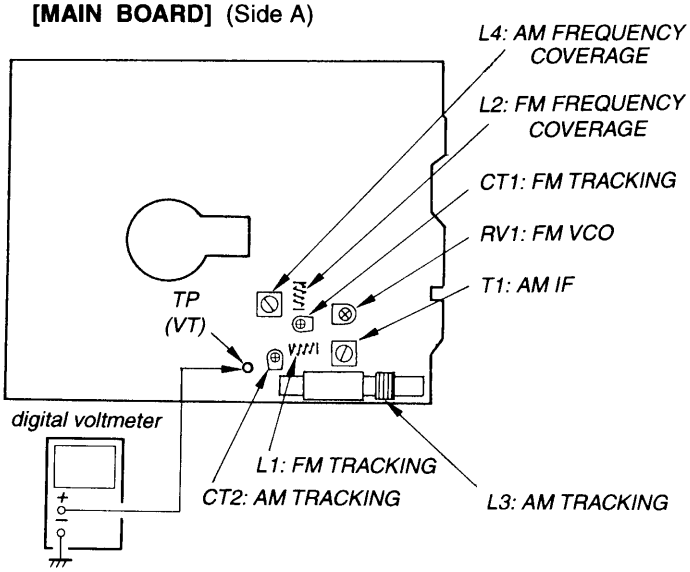


1. Connect frequency counter to the positions shown below.
2. Tune the set to 98 MHz.
3. Adjust RV1 for 76 kHz ± 0.5 kHz reading on the frequency counter.



- **Adjustment Parts Location**

[MAIN BOARD] (Side A)



CD SECTION

Precautions for Adjustment

1. Before beginning adjustment, set the equipment to service mode. After the completion of adjustment, be sure to reset the service mode.
2. Perform adjustments in the order given.
3. Use YEDS-18 disc (Part No.: 3-702-101-01) unless otherwise indicated.
4. Power supply voltage requirement.: DC6 V
   VOLUME control: Minimum
   MEGA BASS switch: NORM

Before Beginning Adjustment

Set the equipment to service mode (See page 10) and check the following. If there is an error, repair the equipment.

• Checking of the sled motor

1. Open the upper panel.
2. Press the ▶▶I and I◀◀ keys and check that the optical pick-up can move smoothly without sluggishness or abnormal noise in innermost periphery → outermost periphery → innermost periphery.
   ▶▶I : The optical pick-up moves outwardly.
   I◀◀ : The optical pick-up moves inwardly.

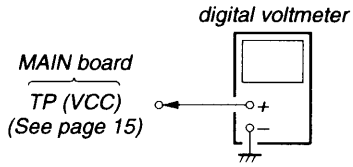
• Checking of focus searching

1. Open the upper panel.
2. Focus searching operation is activated continuously.
3. Check the object lens of the optical pick-up for smooth up/down motion without sluggishness or abnormal noise.
4. Press the OFF key.
   Check that focus searching operation is deactivated. If not, again press the OFF key slightly longer.

VCC Check

* Use a SUM-3 battery for VCC Check

Checking Procedure:



1. Connect the digital voltmeter to (VCC) of the main board.
2. Check for 3.3±0.1 V reading on the digital voltmeter.

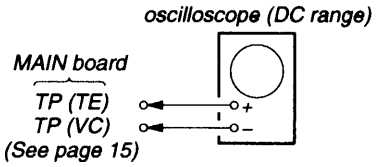
Connection Location: Main Board

Tracking Balance Adjustment

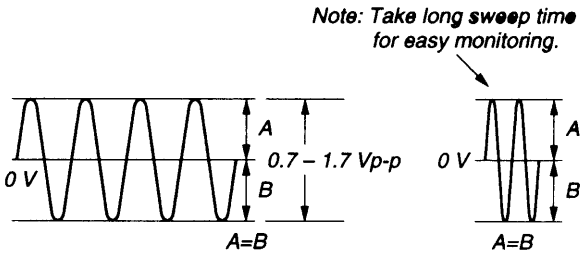
Condition:

• Hold the set in horizontal state.

Adjustment Procedure:



1. Put the disc (YEDS-18).
2. Connect the oscilloscope to TP (TE) and TP (VC) on main board.
3. Set the equipment to service mode stop state. (See page 10.)
4. Move the optical pick-up by pressing the ▶▶I and I◀◀ keys.
5. Adjust RV502 so that the waveform on the oscilloscope becomes up/down symmetrical with an axis of 0 V.



6. Stop removing of the disc motor by pressing the OFF key.
7. After the completion of adjustment, reset service mode. (See page 10.)

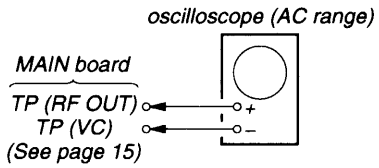
Adjustment Location: Main Board

Focus Bias Check

Condition:

- Hold the set in horizontal state.

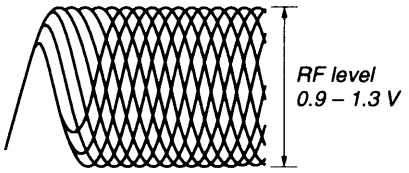
Checking Procedure:



1. Put the disc (YEDS-18).
2. Hold the set in service mode stop state. (See page 10.)
3. Connect the oscilloscope to the test point TP (RF OUT) and TP (VC) on main board.
4. Move the optical pick-up by pressing the ▶▶| and |◀◀ keys. (To display the eye pattern more clearly, move the optical pick-up to the music range of the disc.)
5. Put the BAND WAKE UP TRACK (Both tracking and sled are tuned ON) key.
6. Check the oscilloscope waveform is as shown below. A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

RF SIGNAL WAVEFORM (EYE PATTERN)

VOLT DIV : 200 mV (With the 10:1 probe in use)
TIME DIV : 500 ns



To watch the eye pattern, set the oscilloscope to AC range and increase the vertical sensitivity of the oscilloscope for easy watching.

7. Stop revolving of the disc motor by pressing the OFF key.
8. After the completion of check, reset service mode. (See page 10.)

Connection Location: Main Board

Focus / Tracking Gain Adjustment

A servo analyzer is necessary in order to perform this adjustment exactly.

> However, this gain has a margin, so even if it is slightly off, threr is no probrem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up relative to mechanical noise and mechanical shock when the 2-axis device operates. However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is rased, the noise when 2-axis device operates increase.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

This adjustment has to be performed upon replacing any of the following parts.

- Optical pick-up
- RV504 (Focus gain VR)
- RV503 (Tracking gain VR)

> Nomally, be sure not to move RV504 (focus gain VR) and RV503 (tracking gain VR).

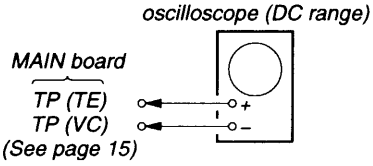
Adjustment method:

– Focus Gain Adjustment –

This adjustment is not performed.
If focus gain VR RV504 is turned, set to mechanical center.

– Tracking Gain Adjustment –

(perform at normal operation)



1. Set the disc (YEDS-18) and press the BAND WAKE UP TRACK key.
2. Place the optical pick-up level, horizontally. (If the optical pick-up is not level, the 2-axis device will be weighted and adjustment cannot be done.)
3. Connect the oscilloscope to TP (TE) and TP (VC) on main board.
4. Turn RV503 slightly clockwise (tracking gain drops) and obtain a waveform with a fundamental wave (waveform has large waves) as in Figure 1. (See page 14.)
5. Turn RV503 slowly counterclockwise (tracking gain rises) until the fundemental wave disappears (no large waves) as in Figure 2. (See page 14.)
6. Set RV503 to the position about 30° counterclockwise form the position obtained in step 5. If RV503 contact point is more than 90° counterclockwise from mechanical center, tracking gain is too high. In this case, readjust from step 4.
7. Press ▶▶| or |◀◀ key and observe the 100 track jump waveform. Check that no traverse waveform appears for both ▶▶| and |◀◀ directions. (See Figures 3 and 4 of page 14.) It is acceptable if the traverse waveform appears only now and then, but if it appears constantly, raise tracking gain slightly and check step 7 again.
8. Check that there is not abnormal amount of operation noise (white noise) from the 2-axis device. If there is, tracking gain is too high, readjust starting with step 4.

The waveforms are those measured with the oscilloscope set as shown below.

- VOLT/DIV: 0.2 V
- TIME/DIV: 5 ms

- Waveform when tracking gain is lowered.
  Fundamental wave appears (large waves).

Fig. 1

- Waveform when fundamental wave disappears (no large waves).

Fig. 2

- Waveform with no traverse waveform during 100 track jump. (Brake application is smooth because of adjustment.)

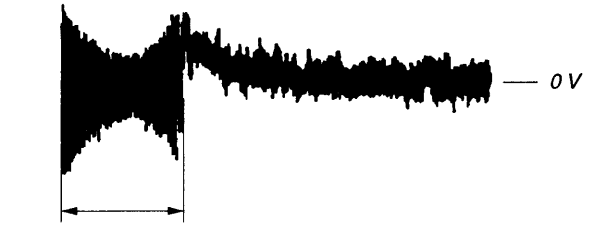


Fig. 3

- Waveform with traverse waveform during 100 track jump. (Brake application is poor because of adjustment.)

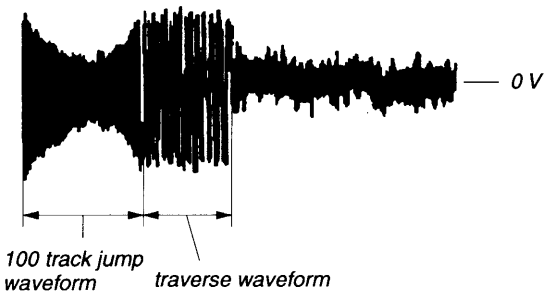
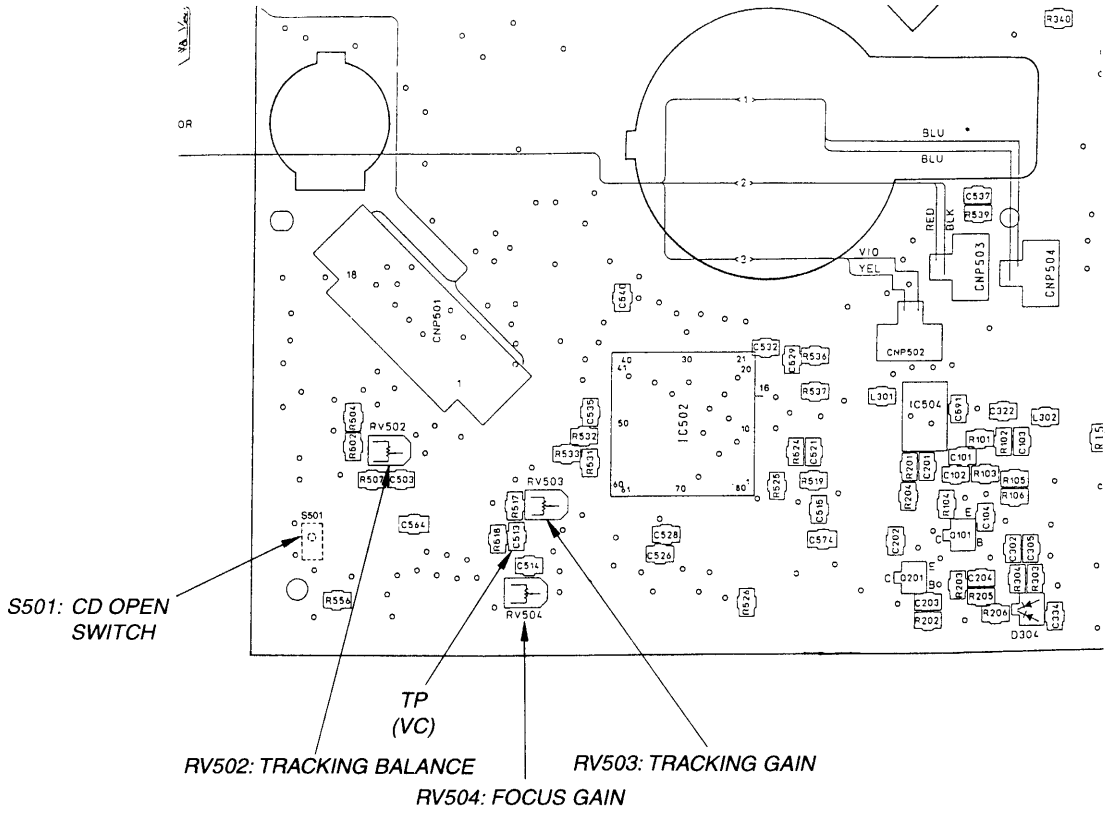


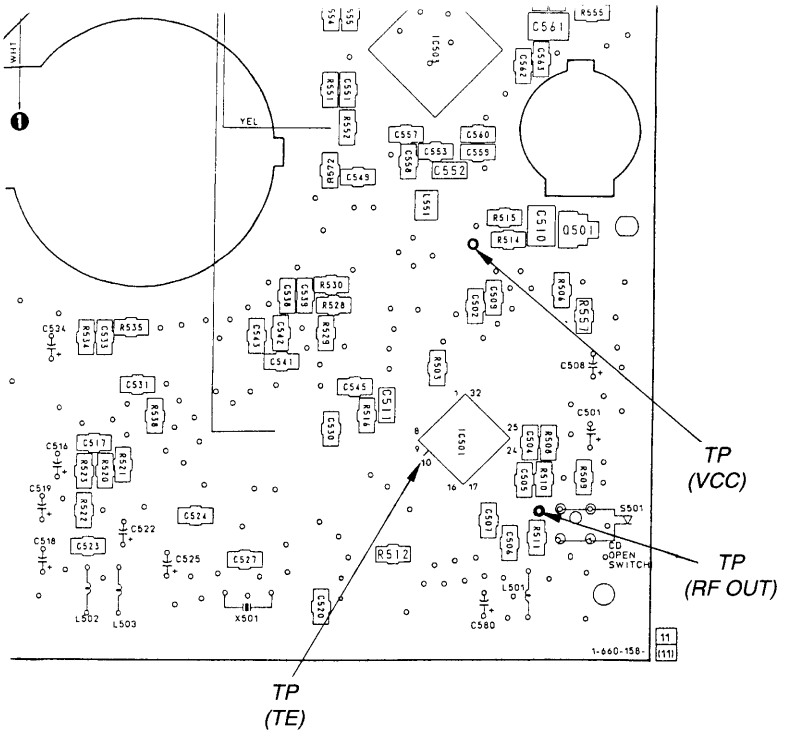
Fig. 4

Adjustment Parts Location

– MAIN BOARD – (Side A)



– MAIN BOARD – (Side B)

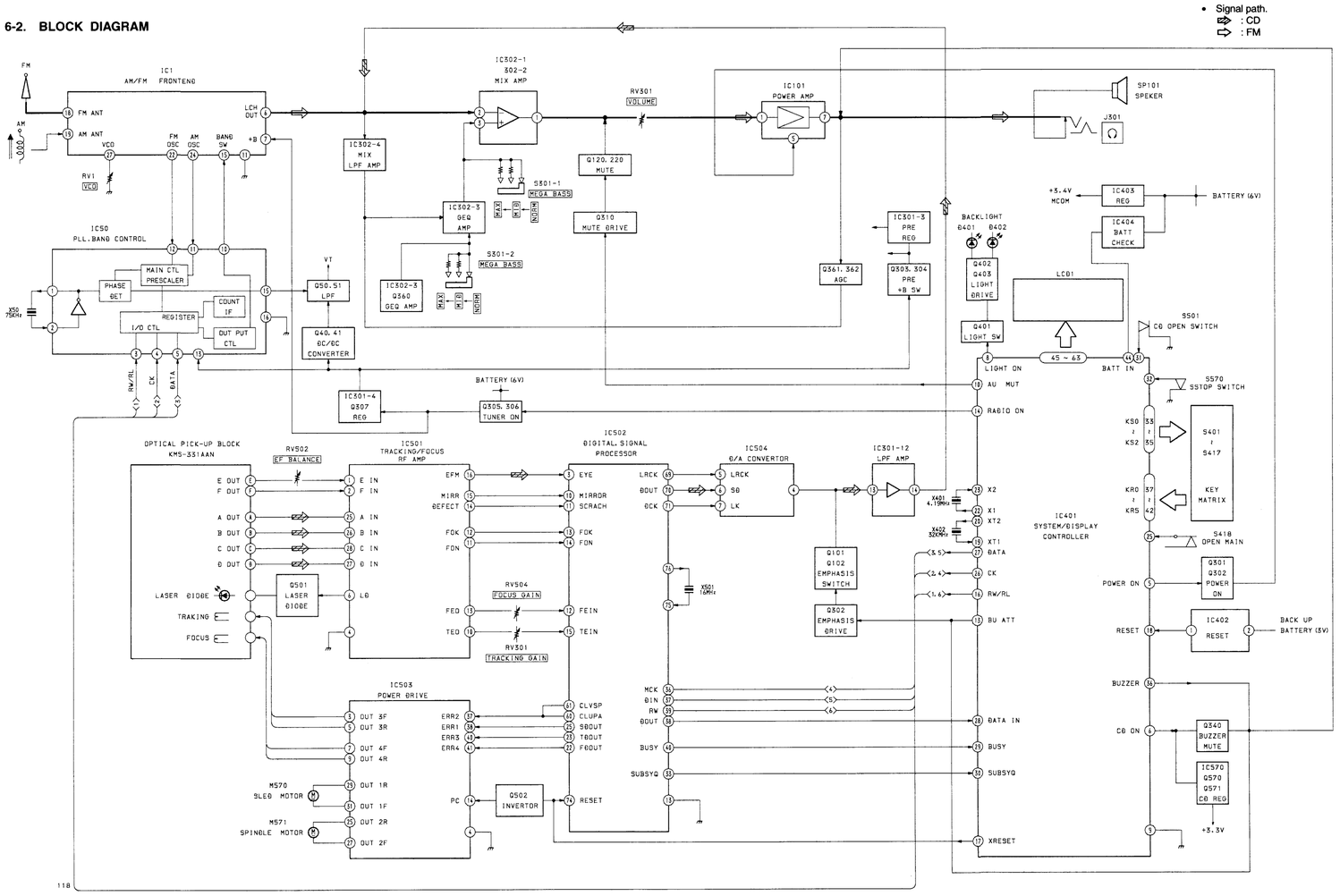


SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION
LCD BOARD IC401 µPD753108-SR7263

Pin No.	Pin Name	I/O	Function
1	BIAS	O	LCD power supply BIAS control output.
2-4	VLC0-VLC2	–	LCD drive power supply.
5	POWER ON	O	Power ON output.
6	CD ON	O	CD ON output.
7	BATT 0	O	Destination input pin at the reset of microcomputer, then it becomes CD OPEN output pin.
8	LIGHT ON	O	Back Light ON output.
9	GND	–	GND
10	AU MUTE	O	Audio mute output.
11	BATT 1	O	Output pin for BATT voltage checking.
12	BATT 2	O	
13	BU ATT	O	Buzzer ATT output.
14	RADIO ON	O	RADIO ON output.
15	SL MUTE	O	CH1 MUTE to IC503/H-P. MUTE output.
16	RW/RL	O	RW to IC502 ㉚ and RLAT to IC50 ③ output.
17	X RESET	O	System reset output. (CD)
18	RESET	I	Reset input from below 2 V.
19	XT1	I	Clock (32 kHz).
20	XT2	O	
21	IC	–	Connect to VDD.
22	X1	O	Clock (4.19 MHz).
23	X2	I	
24	VDD	–	3.2 V power supply input.
25	OPEN MAIN	I	OPEN input from S418.
26	CK	O	Serial clock output.
27	DATA	O	Serial data output.
28	DATA IN	I	Serial data input.
29	BUSY	I	Track Jump input.
30	SUB SYQ	I	Sub code data input.
31	CD	I	CD open input from S501.
32	S.STOP	I	S.STOP input from S570.
33	KS0	O	Key matrix output.
34	KS1	O	
35	KS2	O	
36	BUZZER	O	BUZZER OSC output.
37	KR0	I	Key matrix input.
38	KR1	I	
39	KR2	I	
40	KR3	I	
41	KR4	I	
42	KR5	I	
43	AC IN	I	DC jack or battery in checking. (Power supply from DC in Jack.)
44	BATT IN	I	Input pin for BATT voltage checking.
45-60	S0-S15	O	LCD Segment output.
61-64	COM0-COM3	O	LCD COM output.

6-2. BLOCK DIAGRAM



SEE ADDITIONAL INFORMATION

6-3. PRINTED WIRING BOARD – MAIN SECTION –

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	J-21	Q40	D-23
D2	I-21	Q41	E-23
D3	J-21	Q50	H-20
D4	C-29	Q51	H-20
D6	J-14	Q70	D-24
D7	E-15	Q71	E-24
D8	D-24	Q101	K-9
D40	E-23	Q120	E-18
D41	E-22	Q150	D-18
D301	D-25	Q201	K-9
D302	E-25	Q220	F-19
D303	C-25	Q250	D-19
D304	K-10	Q301	C-22
D305	E-26	Q302	D-11
D306	D-20	Q303	F-26
D307	D-20	Q304	E-26
D308	E-20	Q305	E-26
D309	E-13	Q306	D-26
D310	C-19	Q307	K-22
D550	E-28	Q310	D-11
D551	D-25	Q311	D-14
		Q312	D-14
IC1	I-20	Q320	H-23
IC50	H-12	Q340	F-11
IC101	E-21	Q360	F-14
IC201	E-22	Q361	E-13
IC301	K-23	Q362	E-13
IC302	G-13	Q501	H-29
IC501	J-28	Q502	D-25
IC502	J-7	Q503	C-25
IC503	F-28	Q504	C-25
IC504	J-9	Q570	F-26
IC570	E-26	Q571	E-27

Note:

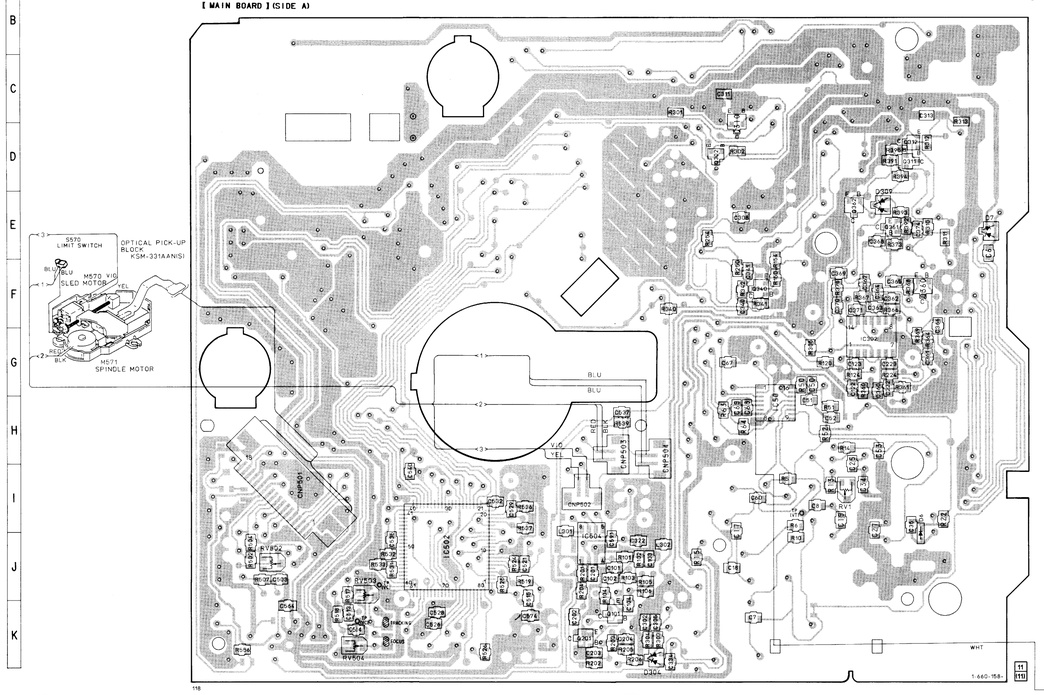
- ——o—— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- △ : internal component.
- : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

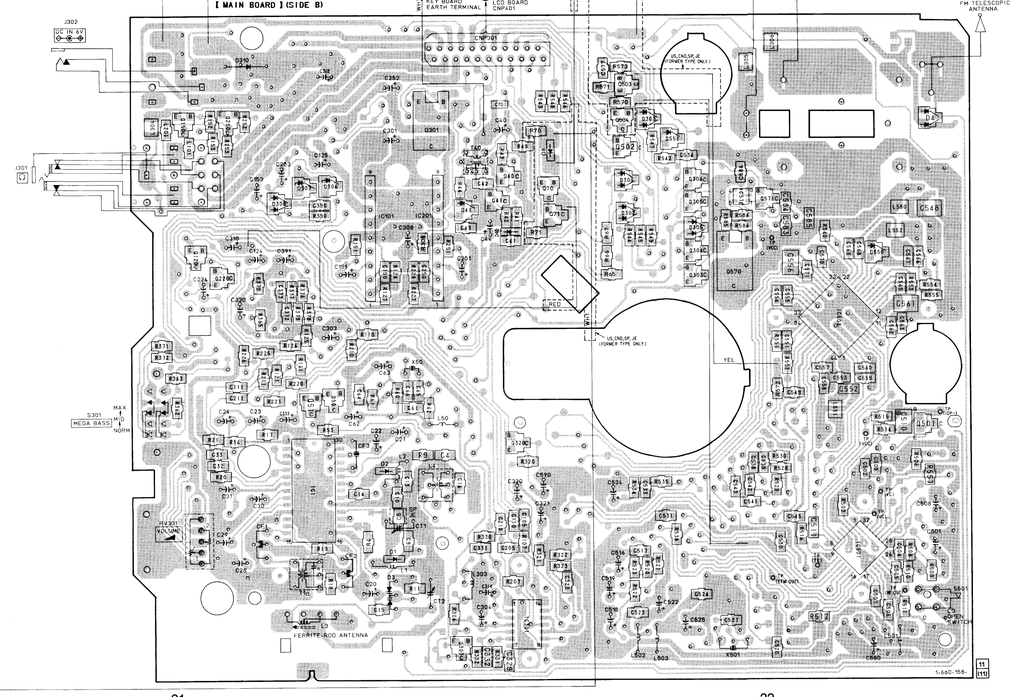
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  CND : Canadian model
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

[MAIN BOARD] (SIDE A)



[MAIN BOARD] (SIDE B)



6-4. SCHEMATIC DIAGRAM –MAIN SECTION–

SEE ADDITIONAL INFORMATION

Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.

Note:	Note:
The components identified by mark ⚠ or otted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ! sont critiques pour la sécurité. ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line.
- : panel designation.
- : adjustment for repair.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  < > : CD
- Voltages are taken with a VOM (10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : FM
  : AM
  : CD
- Abbreviation
  CND : Canadian model
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

• Waveforms

❶ IC502 ⑭
1.4 Vp-p
16 MHz

❷ IC501 ⑱ 500 mV/DIV, 1µsec/DIV
0.9-1.3 Vp-p

❸ IC501 ⑱ 200mV/DIV, 0.2 msec/DIV

❹ IC502 ㉘
3.5 Vp-p
22 µsec

❺ IC501 ⑱ 200 mV/DIV, 2 msec/DIV

• IC Block Diagrams

IC1 CXA1238M-T6

IC101, 201 TA7368P

IC501 BA6376K

IC503 BH6504K

IC502 BU9312AKS

IC504 BU9480F-E2

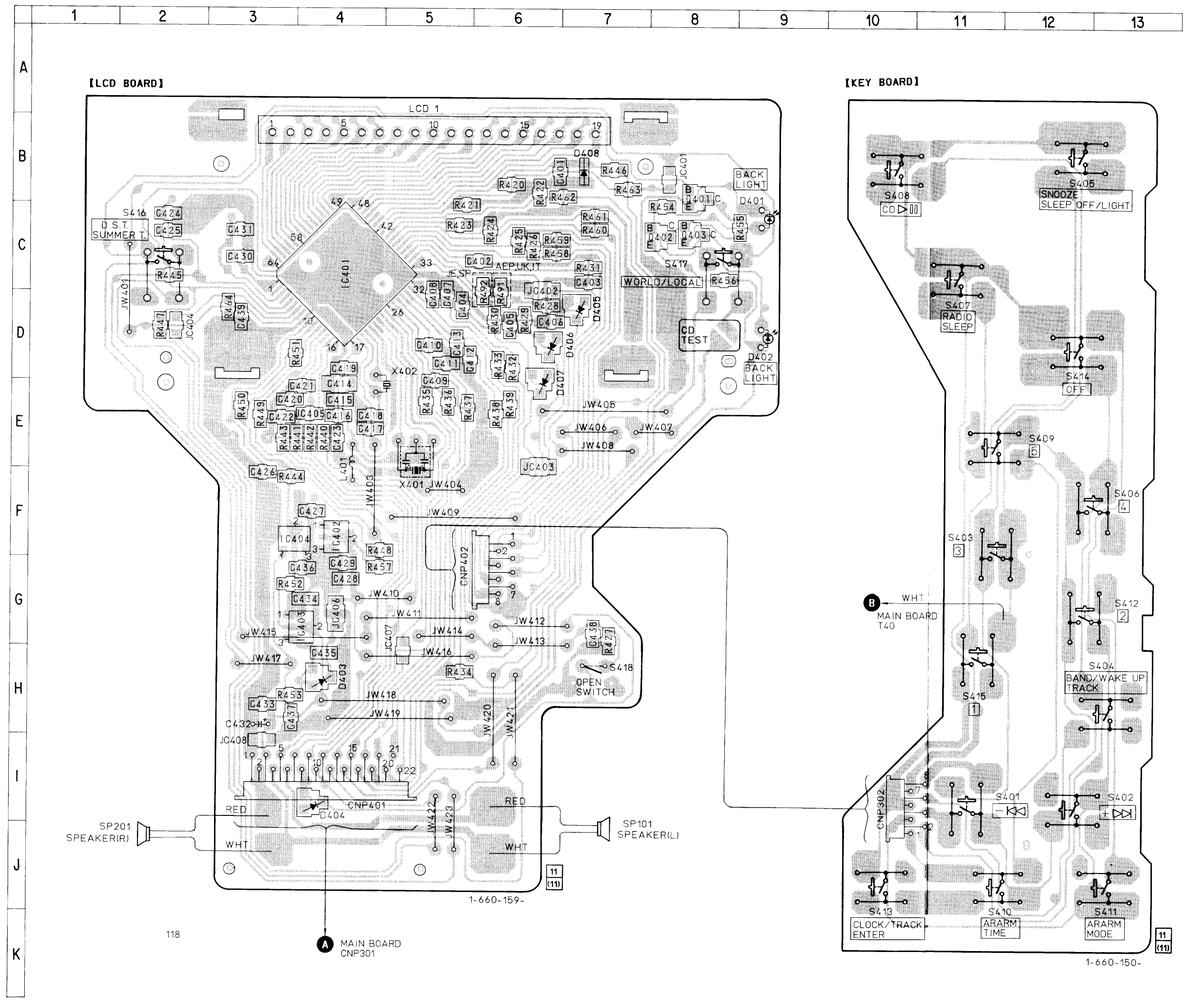
SEE ADDITIONAL INFORMATION

6-5. PRINTED WIRING BOARDS – LCD SECTION –

Note:
- o—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ▨ :Pattern from the side which enables seeing.
- Abbreviation
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

• Semiconductor Location

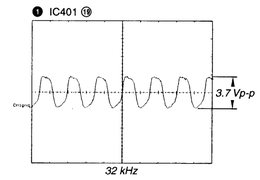
Ref. No.	Location
D401	B-9
D402	D-9
D403	H-4
D404	I-4
D405	D-7
D406	D-6
D407	E-6
D408	B-7
IC401	C-4
IC402	F-4
IC403	G-4
IC404	F-4
Q401	B-8
Q402	C-8
Q403	C-8



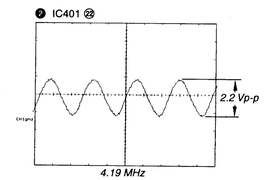
Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- ▭ : panel designation.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
- Abbreviation
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

• Waveforms

❶ IC401 ⑱

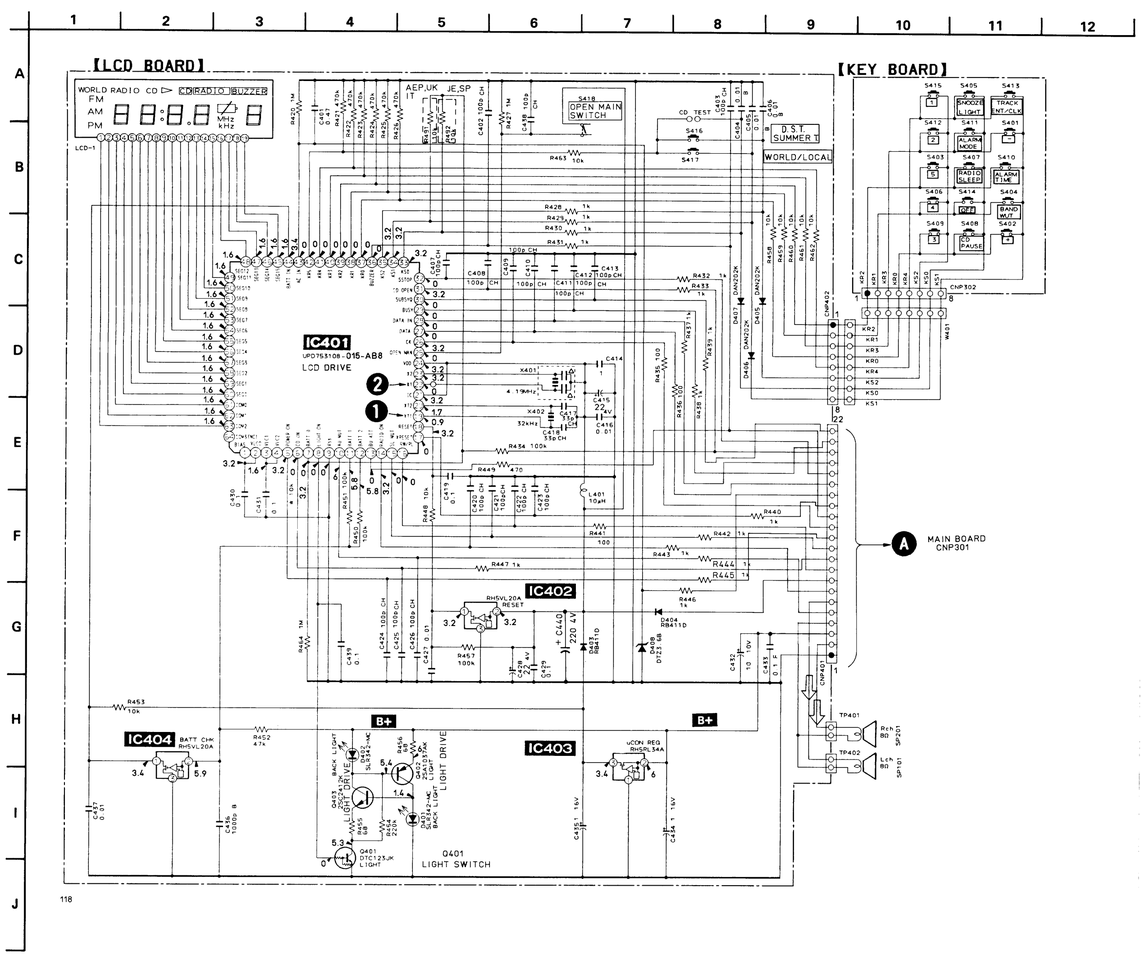


❷ IC401 ㉒



6-6. SCHEMATIC DIAGRAM – LCD SECTION – • See page 16 for IC PIN Function Description.

SEE ADDITIONAL INFORMATION



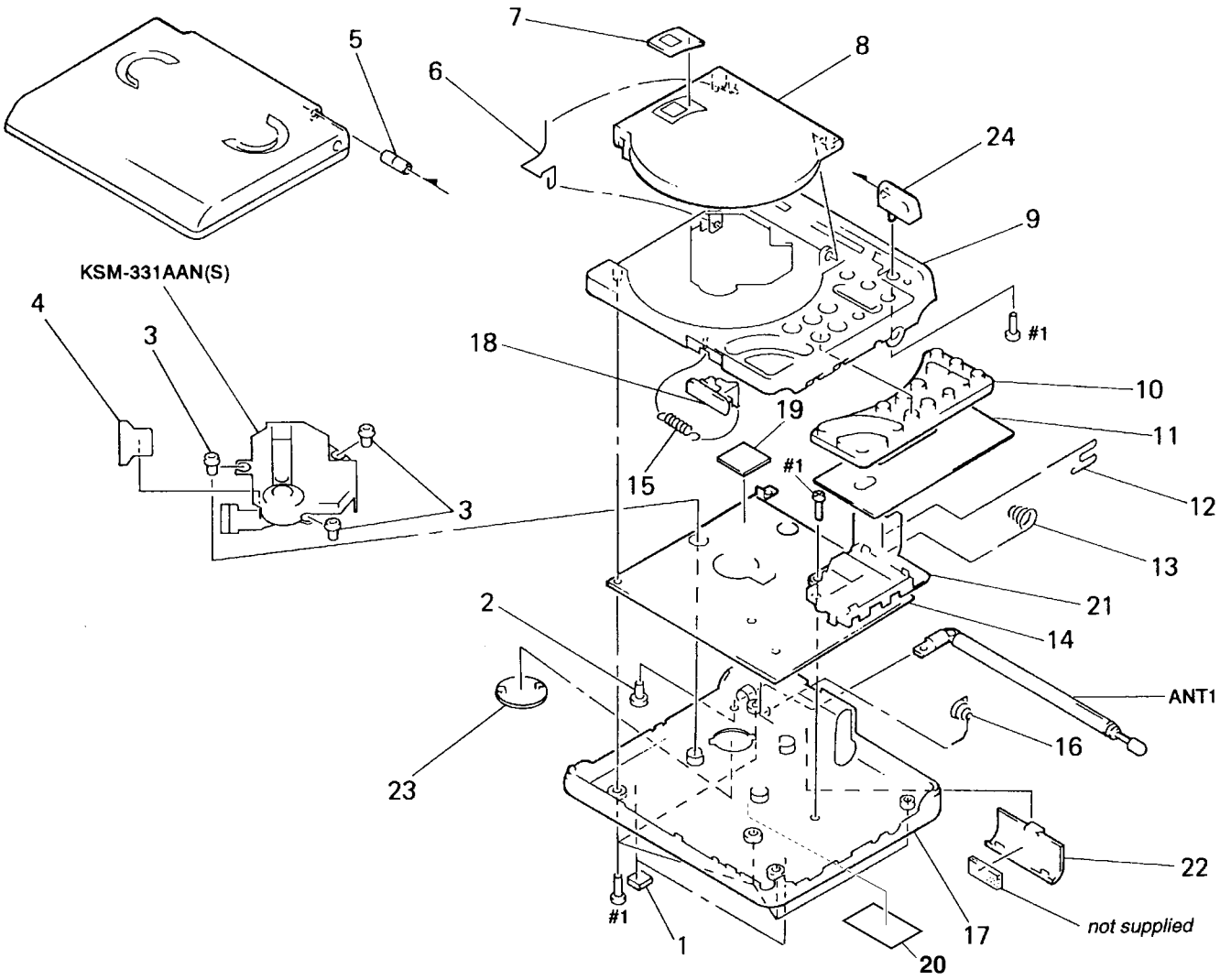
SECTION 7
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearrance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbrevation
  CND: Canadian SP: Singapore
  IT: Italian JE: Tourist
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

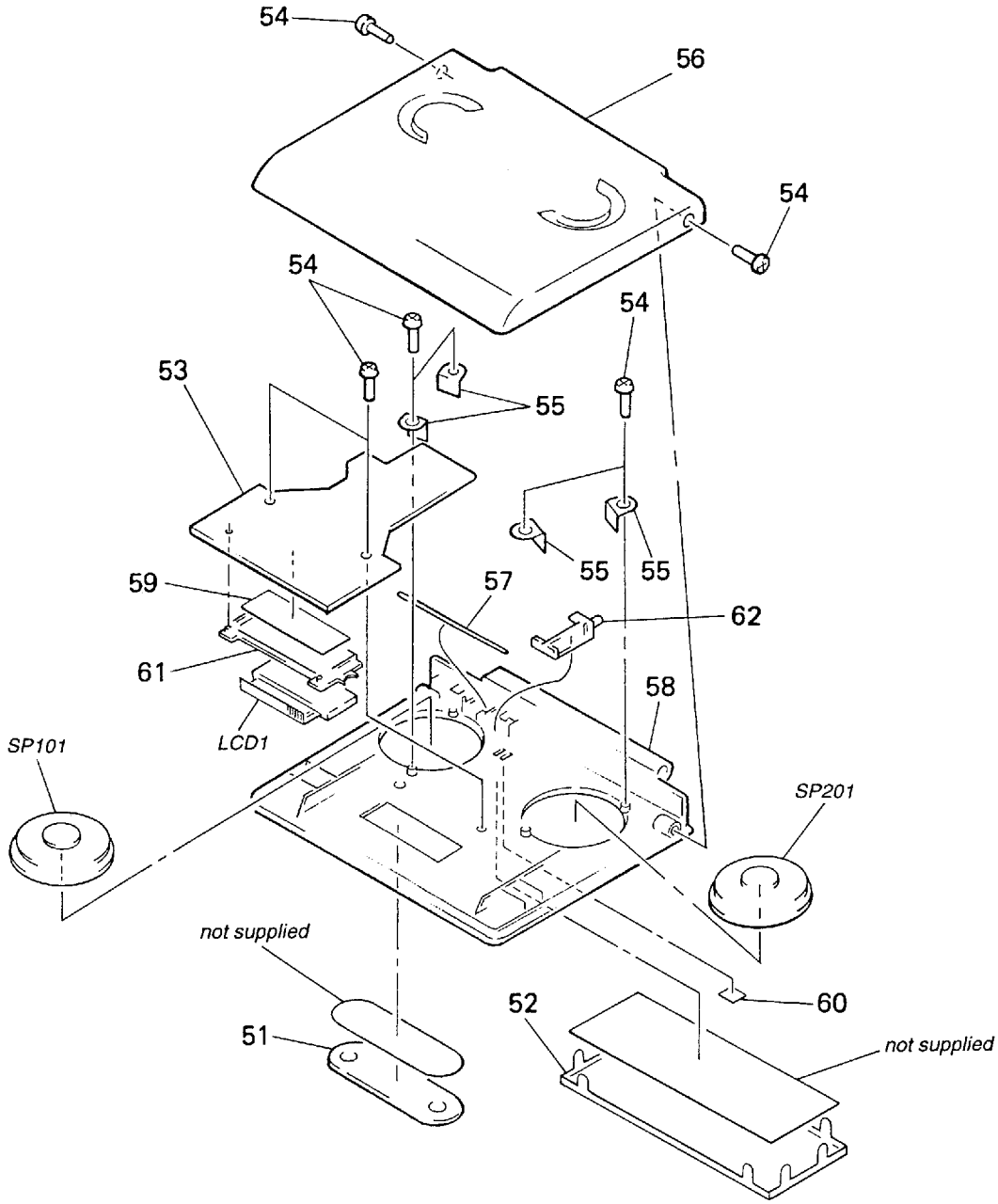
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

(1) CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	3-368-852-01	FOOT	
2	3-370-475-01	SCREW (NYLOCK +B 3X6)	
3	4-962-370-01	INSULATOR	
* 4	4-956-818-01	RETAINER, FLEXIBLE	
5	X-3372-374-1	SHAFT ASSY	
6	3-934-782-01	SPRING (LID OPEN)	
7	3-934-433-01	WINDOW (LCD)	
8	3-934-423-01	LID, CD	
9	3-934-420-01	CABINET (UPPER)	
10	3-934-422-01	BUTTON, MAIN	
* 11	1-660-160-11	KEY BOARD	
12	3-934-437-01	TERMINAL (+)	
13	3-934-438-01	TERMINAL (-)	
* 14	A-3662-504-A	MAIN BOARD, COMPLETE (US, CND).	
* 14	A-3662-516-A	MAIN BOARD, COMPLETE (SP, JE)	
* 14	A-3662-525-A	MAIN BOARD, COMPLETE (AEP, UK, IT)	
15	3-934-442-01	SPRING (OPEN)	
16	3-934-439-01	TERMINAL (+/-)	
17	3-934-421-01	CABINET (LOWER) (US, CND, SP)	
17	3-934-421-11	CABINET (LOWER) (AEP, UK, IT)	
17	3-934-421-21	CABINET (LOWER) (JE)	
18	3-934-426-01	KNOB (OPEN)	
19	3-936-595-01	BLIND (MD)	
* 20	4-941-548-01	LABEL, CLASS (1) (AEP, UK, IT)	
21	3-934-424-01	CHASSIS	
22	3-934-425-01	LID, BATTERY CASE	
23	3-934-429-01	LID, (LITHIUM, BATTERY CASE)	
24	3-934-427-01	COVER (SHAFT)	
ANT1	1-501-362-11	ANTENNA, TELESCOPIC (FM)	

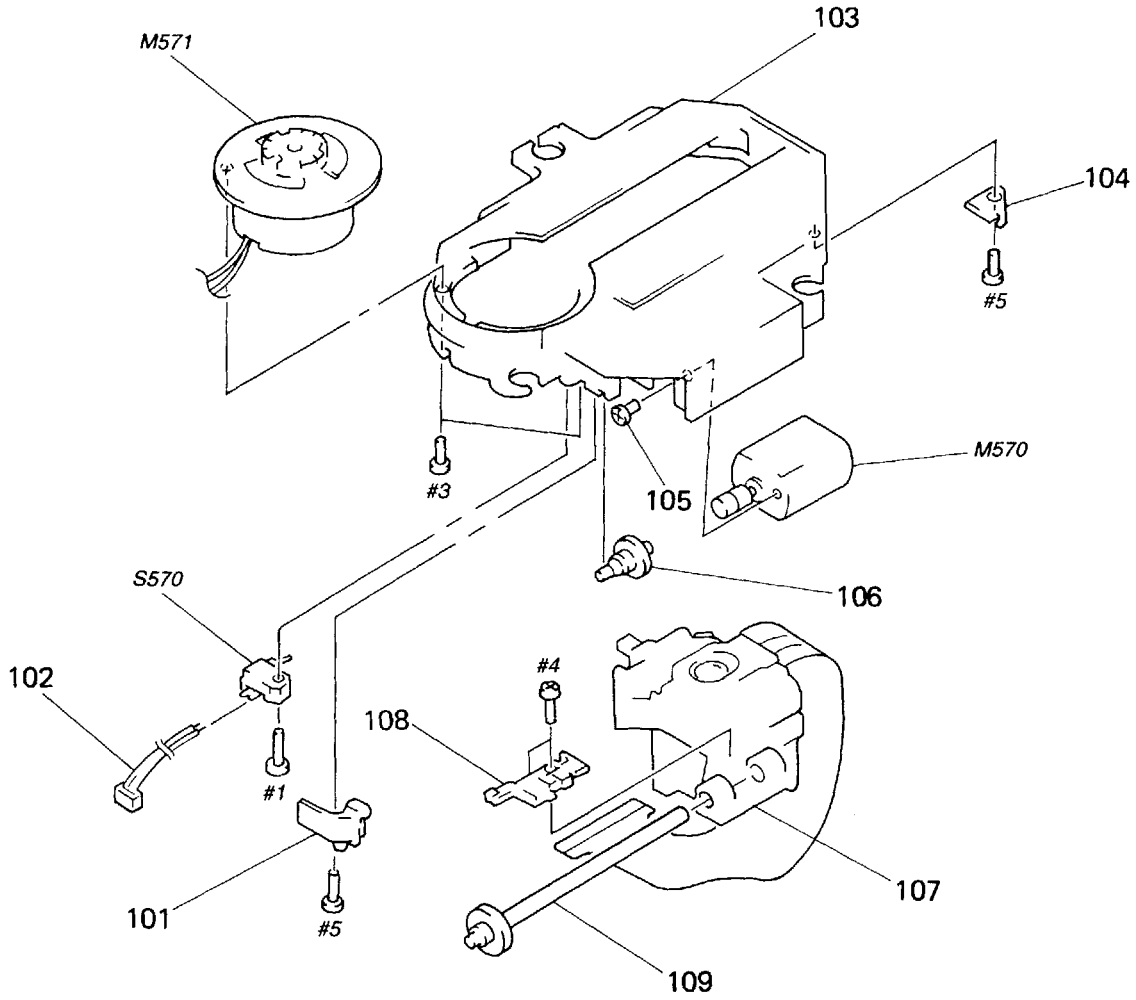
(2) PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-934-434-01	WINDOW (CD)	
52	3-934-431-01	PANEL (SPEAKER)	
* 53	A 3662-509-A	LCD BOARD, COMPLETE (US, CND)	
* 53	A-3662-518-A	LCD BOARD, COMPLETE (SP, JE)	
* 53	A-3662-527-A	LCD BOARD, COMPLETE (AEP, UK, IT)	
54	3-318-203-71	SCREW (B1.7X5), TAPPING	
* 55	3-934-436-01	HOOK (SPEAKER)	
56	3-934-419-01	PANEL (COVER)	
57	3-934-781-01	SPRING (OFF SW)	

Ref. No.	Part No.	Description	Remark
58	3-934-418-01	PANEL (FRONT)	
59	3-935-991-01	SHEET, REFLECTION	
60	3-937-677-01	BLIND (SP)	
61	3-934-430-01	HOLDER (LCD)	
62	3-934-428-01	BUTTON (OFF SW)	
LCD1	1-801-252-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP101	1-505-311-11	SPEAKER (L)	
SP201	1-505-311-11	SPEAKER (R)	

(3) OPTICAL PICK-UP SECTION (KSM-331AAN (S))



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description	Remark
101	2-625-412-02	SPRING, SLED	
102	1-948-418-21	HARNESS	
103	2-625-415-05	CHASSIS, MD	
104	2-625-411-01	RETAINER, SHAFT	
105	3-732-988-01	SCREW (M2X2.5)	
106	2-625-410-01	GEAR (B)	

Ref. No.	Part No.	Description	Remark
⚠107	8-848-289-31	OPTICAL PICK-UP (KSS-331A)	
108	2-625-414-02	RACK	
109	X-2625-483-1	SCREW ASSY, SLED	
S570	1-570-771-11	SWITCH (LIMIT)	
M570	X-2625-171-2	MOTOR ASSY, (SLED)	
M571	X-2625-485-1	MOTOR ASSY (MS), T.T. (SPINDLE)	

SEE ADDITIONAL INFORMATION

SECTION 8
ELECTRICAL PARTS LIST

KEY | LCD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  CND:Canadian IT:Italian
  SP :Singapore JE:Tourist
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA . . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. . uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
*	1-660-160-11	KEY BOARD			
		*********			
		< CONNECTOR >			
CNP302	1-778-033-11	CONNECTOR, FFC/FPC			
		< SWITCH >			
S401	1-553-856-00	SWITCH, KEYBOARD (⏮) (TUNING TIME SET-)			
S402	1-553-856-00	SWITCH, KEYBOARD (⏭) (TUNING TIME SET+)			
S403	1-553-856-00	SWITCH, KEYBOARD (5)			
S404	1-553-856-00	SWITCH, KEYBOARD (BAND WAKE UP TRACK)			
S405	1-553-856-00	SWITCH, KEYBOARD (SNOOZE)			
S406	1-553-856-00	SWITCH, KEYBOARD (4)			
S407	1-553-856-00	SWITCH, KEYBOARD (RADIO SLEEP)			
S408	1-553-856-00	SWITCH, KEYBOARD (CD▶❚❚)			
S409	1-553-856-00	SWITCH, KEYBOARD (3)			
S410	1-553-856-00	SWITCH, KEYBOARD (ALARM TIME)			
S411	1-553-856-00	SWITCH, KEYBOARD (ALARM MODE)			
S412	1-553-856-00	SWITCH, KEYBOARD (2)			
S413	1-553-856-00	SWITCH, KEYBOARD (CLOCK/TRACK ENTER)			
S414	1-553-856-00	SWITCH, KEYBOARD (OFF)			
S415	1-553-856-00	SWITCH, KEYBOARD (1)			
**********					
*	A-3662-509-A	LCD BOARD, COMPLETE (US, CND)			
*	A-3662-527-A	LCD BOARD, COMPLETE (AEP, UK, IT)			
*	A-3662-518-A	LCD BOARD, COMPLETE (SP, JE)			
		******************			
	3-934-430-01	HOLDER (LCD)			
		< CAPACITOR >			
C401	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C402	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C403	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C404	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C405	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C406	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C407	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C408	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C409	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C410	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C411	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C412	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C413	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C414	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C415	1-104-847-11	TANTAL CHIP	22uF	20%	4V
C416	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C417	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C418	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C419	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C420	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C421	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C422	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C423	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C424	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C425	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C426	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C427	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C428	1-104-847-11	TANTAL CHIP	22uF	20%	4V
C429	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C430	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C431	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C432	1-126-157-11	ELECT	10uF	20%	16V
C433	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C434	1-135-091-91	TANTAL CHIP	1uF	20%	16V
C435	1-135-091-91	TANTAL CHIP	1uF	20%	16V
C436	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C437	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C438	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C439	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C440	1-124-434-00	ELECT	220uF	20%	4V
		< CONNECTOR >			
CNP401	1-778-032-11	CONNECTOR, FFC/FPC			
CNP402	1-778-033-11	CONNECTOR, FFC/FPC			
		< DIODE >			
D401	8-719-056-07	DIODE	SLR-342MC3F		
D402	8-719-056-07	DIODE	SLR-342MC3F		

LCD

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description				Remark
D403	8-719-975-40	DIODE	RB411D			
D404	8-719-975-40	DIODE	RB411D			
D405	8-719-914-43	DIODE	DAN202K			
D406	8-719-914-43	DIODE	DAN202K			
D407	8-719-914-43	DIODE	DAN202K			
D408	8-719-056-76	DIODE	UDZ-TE-17-3.6B			
		< IC >				
IC401	8-759-421-51	IC	uPD753108-SR7263			
IC402	8-759-395-07	IC	RH5VL20AA-T1			
IC403	8-759-426-02	IC	RH5RL34AA-T1			
IC404	8-759-395-07	IC	RH5VL20AA-T1			
		< CHIP CONDUCTOR >				
JC401	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC402	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC403	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC404	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC405	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC406	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC407	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC408	1-216-295-00	CONDUCTOR, CHIP	(2012)			
		< COIL >				
L401	1-410-526-11	INDUCTOR	10uH			
		< LIQUID CRYSTAL DISPLAY >				
LCD1	1-801-252-11	DISPLAY PANEL, LIQUID CRYSTAL				
		< TRANSISTOR >				
Q401	8-729-027-50	TRANSISTOR	DTC123JKA-T146			
Q402	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R			
Q403	8-729-120-28	TRANSISTOR	2SC2412K			
		< RESISTOR >				
R420	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R421	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R422	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R423	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R424	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R425	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R426	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R427	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R428	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R429	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R430	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R431	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R432	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R433	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R434	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R435	1-216-025-00	METAL CHIP	100	5%	1/10W	
R436	1-216-025-00	METAL CHIP	100	5%	1/10W	
R437	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R438	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R439	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R440	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R441	1-216-025-00	METAL CHIP	100	5%	1/10W	
R442	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R443	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R444	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R445	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R446	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R447	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R448	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R449	1-216-041-00	METAL CHIP	470	5%	1/10W	
R450	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R451	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R452	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R453	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R454	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R455	1-216-021-00	METAL CHIP	68	5%	1/10W	
R456	1-216-021-00	METAL CHIP	68	5%	1/10W	
R457	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R458	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R459	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R460	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R461	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R462	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R463	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R464	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R491	1-216-073-00	METAL CHIP	10K	5%	1/10W	(AEP, UK, IT)
R492	1-216-073-00	METAL CHIP	10K	5%	1/10W	(SP, JE)
		< SWITCH >				
S416	1-553-856-00	SWITCH, KEYBOARD (D.S.T. SUMMER T.)				
S417	1-553-856-00	SWITCH, KEYBOARD (WORLD/LOCAL)				
S418	1-571-958-11	SWITCH, PUSH (1 KEY) (OPEN MAIN)				
		< FLAT CABLE >				
W401	1-777-083-11	CORD, CONNECTION				
W402	1-777-084-11	CORD, CONNECTION				
		< VIBRATOR >				
X401	1-760-641-21	VIBRATOR, CERAMIC (4.19MHz)				
X402	1-567-098-41	VIBRATOR, CRYSTAL (32KHz)				

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SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description			Remark
*	A-3662-504-A	MAIN BOARD, COMPLETE (US, CND)			
*	A-3662-525-A	MAIN BOARD, COMPLETE (AEP, UK, IT)			
*	A-3662-516-A	MAIN BOARD, COMPLETE (SP, JE)			
		**********			
*	3-934-440-01	TERMINAL (LITHIUM/+)			
*	3-934-441-01	TERMINAL (LITHIUM/-)			
*	3-934-443-01	CONTACT (ANT)			
	3-934-445-01	PLATE (A), SHIELD (US, CND)			
		< CAPACITOR >			
C4	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C5	1-163-222-11	CERAMIC CHIP	5PF 5%		50V (SP, JE)
C6	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C7	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C8	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C9	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C10	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C13	1-163-091-00	CERAMIC CHIP	8PF		50V
C14	1-163-227-11	CERAMIC CHIP	10PF		50V
C15	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C16	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V
C17	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C18	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C19	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C20	1-126-514-11	ELECT	22uF	20%	10V
C21	1-124-257-00	ELECT	2.2uF	20%	50V
C22	1-126-514-11	ELECT	22uF	20%	10V
C23	1-124-465-00	ELECT	0.47uF	20%	50V
C24	1-126-163-11	ELECT	4.7uF	20%	50V
C25	1-164-346-11	CERAMIC CHIP	1uF		16V
C27	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C28	1-126-163-11	ELECT	4.7uF	20%	50V
C29	1-126-301-11	ELECT	1uF	20%	50V
C30	1-126-514-11	ELECT	22uF	20%	10V
C31	1-128-110-11	ELECT	47uF	20%	4V
C32	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C33	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C34	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C35	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C40	1-126-157-11	ELECT	10uF	20%	16V
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C42	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C43	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C44	1-126-301-11	ELECT	1uF	20%	50V
C50	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C51	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C52	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C53	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C60	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C61	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C62	1-126-514-11	ELECT	22uF	20%	10V
C63	1-126-163-11	ELECT	4.7uF	20%	50V
C64	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C65	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C66	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C67	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C68	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C69	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C70	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C101	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C102	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C103	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C104	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C105	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C110	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C111	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C122	1-163-227-11	CERAMIC CHIP	10PF		50V
C123	1-163-227-11	CERAMIC CHIP	10PF		50V
C124	1-126-163-11	ELECT	4.7uF	20%	50V
C150	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C151	1-126-513-11	ELECT	47uF	20%	6.3V
C152	1-128-150-11	ELECT	820uF	20%	4V
C153	1-126-163-11	ELECT	4.7uF	20%	50V
C201	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C202	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C203	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C204	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C205	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C210	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C211	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C222	1-163-227-11	CERAMIC CHIP	10PF		50V
C223	1-163-227-11	CERAMIC CHIP	10PF		50V
C224	1-126-163-11	ELECT	4.7uF	20%	50V
C250	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C251	1-126-513-11	ELECT	47uF	20%	6.3V
C252	1-128-150-11	ELECT	820uF	20%	4V
C253	1-126-163-11	ELECT	4.7uF	20%	50V
C301	1-124-427-11	ELECT	470uF	20%	10V
C302	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C303	1-124-234-00	ELECT	22uF	20%	16V
C304	1-126-785-11	ELECT	47uF	20%	10V
C305	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C308	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C310	1-126-163-11	ELECT	4.7uF	20%	50V
C311	1-128-392-11	ELECT	470uF	20%	6.3V
C312	1-104-666-11	ELECT	220uF	20%	10V
C313	1-126-608-11	ELECT	330uF	20%	2V
C314	1-126-163-11	ELECT	4.7uF	20%	25V

MAIN

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description			Remark
C320	1-126-163-11	ELECT	4.7uF	20%	50V
C321	1-126-157-11	ELECT	10uF	20%	16V
C322	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C323	1-164-346-11	CERAMIC CHIP	1uF		16V
C329	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C330	1-126-163-11	ELECT	4.7uF	20%	50V
C331	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C332	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C333	1-124-472-11	ELECT	470uF	20%	10V
C334	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C340	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C341	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C350	1-104-483-11	ELECT	470uF	20%	4V
C360	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C361	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C362	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C363	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C364	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C365	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C366	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C367	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C368	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C369	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C370	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C371	1-163-227-11	CERAMIC CHIP	10PF		50V
C372	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C373	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C374	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C390	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C391	1-126-154-11	ELECT	47uF	20%	6.3V
C501	1-126-513-11	ELECT	47uF	20%	6.3V
C502	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C503	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C504	1-163-085-00	CERAMIC CHIP	2PF		50V
C505	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C506	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C507	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C508	1-126-513-11	ELECT	47uF	20%	6.3V
C509	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C510	1-104-908-11	TANTAL CHIP	47uF	20%	4V
C511	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C513	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C514	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C515	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C516	1-124-257-00	ELECT	2.2uF	20%	50V
C517	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C518	1-126-157-11	ELECT	10uF	20%	16V
C519	1-124-257-00	ELECT	2.2uF	20%	50V

Ref. No.	Part No.	Description			Remark
C520	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C521	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C522	1-124-584-00	ELECT	100uF	20%	10V
C523	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C524	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C525	1-124-584-00	ELECT	100uF	20%	10V
C526	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C527	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C528	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C529	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C530	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C531	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C532	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C533	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C534	1-126-514-11	ELECT	22uF	20%	10V
C535	1-164-346-11	CERAMIC CHIP	1uF		16V
C536	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C537	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C538	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C539	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C540	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C541	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C542	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C543	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C545	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C548	1-104-908-11	TANTAL CHIP	47uF	20%	4V
C549	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C551	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C552	1-104-847-11	TANTAL CHIP	22uF	20%	4V
C553	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C554	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C555	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C556	1-104-908-11	TANTAL CHIP	47uF	20%	4V
C557	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C558	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C559	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C560	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C561	1-104-908-11	TANTAL CHIP	47uF	20%	4V
C562	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C563	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C564	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C565	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C566	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C567	1-164-346-11	CERAMIC CHIP	1uF		16V
C568	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C569	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C570	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C571	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C574	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V

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Ref. No.	Part No.	Description	Remark
C577	1-104-847-11	TANTAL CHIP 22uF 20% 4V	(US, CND, SP, JE)
C580	1-124-635-00	ELECT 220uF 20% 6.3V	
C583	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C584	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C585	1-135-151-21	TANTAL CHIP 4.7uF 20% 4V	
C586	1-164-346-11	CERAMIC CHIP 1uF 16V	(US, CND, SP, JE)
C590	1-126-157-11	ELECT 10uF 20% 16V	
C591	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
		< CERAMIC FILTER >	
CF1	1-577-072-21	FILTER, CERAMIC	
CF2	1-760-237-11	FILTER, CERAMIC	
CF3	1-760-237-11	FILTER, CERAMIC	
		< CONNECTOR >	
CNP301	1-778-124-11	CONNECTOR, FFC/FPC 22P	
CNP501	1-566-534-11	CONNECTOR, FPC (ZIF) 18P	
* CNP502	1-695-320-31	PIN, CONNECTOR (1.5MM) (SMD) 2P	
* CNP503	1-695-320-21	PIN, CONNECTOR (1.5MM) (SMD) 2P	
* CNP504	1-695-320-51	PIN, CONNECTOR (1.5MM) (SMD) 2P	
		< TRIMMER >	
CT1	1-141-304-21	CAP, TRIMMER 10PF	
CT2	1-141-304-21	CAP, TRIMMER 10PF	
		< DIODE >	
D1	8-713-100-11	DIODE 1T362	(US, CND, AEP, UK, IT)
D1	8-719-002-81	DIODE 1T363	(SP, JE)
D2	8-713-100-11	DIODE 1T362	(US, CND, AEP, UK, IT)
D2	8-719-002-81	DIODE 1T363	(SP, JE)
D3	8-719-980-71	DIODE SVC342L-V	
D4	8-719-800-76	DIODE 1SS226	
D6	8-719-056-76	DIODE UDZ-TE-17-3.6B	
D7	8-719-800-76	DIODE 1SS226	
D8	8-719-801-78	DIODE 1SS184	(US, CND, SP, JE)
D8	8-719-914-43	DIODE DAN202K	(US, CND, SP, JE)
D40	8-719-978-61	DIODE DTZ-TT11-13B	
D41	8-719-914-43	DIODE DAN202K	
D301	8-719-914-43	DIODE DAN202K	
D302	8-719-914-43	DIODE DAN202K	
D303	8-719-914-43	DIODE DAN202K	
D304	8-719-914-43	DIODE DAN202K	
D305	8-719-914-43	DIODE DAN202K	
D306	8-719-914-43	DIODE DAN202K	
D307	8-719-914-43	DIODE DAN202K	
D308	8-719-914-43	DIODE DAN202K	
D309	8-719-800-76	DIODE 1SS226	
D310	8-719-981-51	DIODE RB100A	(SP, JE)

Ref. No.	Part No.	Description	Remark
D310	8-719-052-88	DIODE 1N4002	(US, CND, AEP, UK, IT)
D550	8-719-975-40	DIODE RB411D	
D551	8-719-914-43	DIODE DAN202K	
		< IC >	
IC1	8-752-062-48	IC CXA1238M-T6	
IC50	8-759-188-85	IC BU2614FS	
IC101	8-759-208-50	IC TA7368P	
IC201	8-759-208-50	IC TA7368P	
IC301	8-759-075-55	IC BA10324AF-T1	
IC302	8-759-075-55	IC BA10324AF-T1	
IC501	8-759-335-59	IC BA6376K	
IC502	8-759-394-55	IC BU9312AKS	
IC503	8-759-395-06	IC BH6504K	
IC504	8-759-395-05	IC BU9480F-E2	
IC570	8-759-193-04	IC RN5RG33AA-TL	
		< JACK >	
J301	1-778-034-11	JACK (Ω)	
J302	1-691-099-51	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 6V)
		< COIL >	
L1	1-428-292-11	COIL, AIR-CORE	
L2	1-406-546-11	COIL, AIR-CORE	(US, CND, AEP, UK, IT)
L2	1-406-545-11	COIL, AIR-CORE	(SP, JE)
L3	1-501-842-11	ANTENNA, FERRITE-ROD	
L4	1-406-485-11	COIL (OSC)	
L50	1-410-527-11	INDUCTOR 100uH	
L101	1-414-235-11	INDUCTOR, FERRITE BEAD	
L201	1-414-235-11	INDUCTOR, FERRITE BEAD	
L301	1-414-235-11	INDUCTOR, FERRITE BEAD	
L302	1-414-235-11	INDUCTOR, FERRITE BEAD	
L303	1-410-526-11	INDUCTOR 10uH	
L304	1-412-052-21	INDUCTOR CHIP 1uH	
L305	1-412-066-21	INDUCTOR CHIP 220uH	
L306	1-412-066-21	INDUCTOR CHIP 220uH	
L501	1-410-526-11	INDUCTOR 10uH	
L502	1-410-526-11	INDUCTOR 10uH	
L503	1-410-526-11	INDUCTOR 10uH	
L550	1-412-056-11	INDUCTOR CHIP 4.7uH	
L551	1-412-058-11	INDUCTOR CHIP 10uH	
L552	1-412-066-21	INDUCTOR CHIP 220uH	
		< TRANSISTOR >	
Q40	8-729-120-28	TRANSISTOR 2SC2412K	
Q41	8-729-120-28	TRANSISTOR 2SC2412K	
Q50	8-729-120-28	TRANSISTOR 2SC2412K	
Q51	8-729-120-28	TRANSISTOR 2SC2412K	
Q70	8-729-900-53	TRANSISTOR DTC114EKA	(US, CND, SP, JE)

MAIN

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Ref. No.	Part No.	Description	Remark
Q71	8-729-027-29	TRANSISTOR DTA123JKA (US, CND, SP, JE)	
Q101	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q120	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q150	8-729-120-28	TRANSISTOR 2SC2412K	
Q201	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q220	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q250	8-729-120-28	TRANSISTOR 2SC2412K	
Q301	8-729-921-93	TRANSISTOR 2SB1182F5-QR	
Q302	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q303	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q304	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q305	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q306	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q307	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q310	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q311	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q312	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q320	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q340	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q360	8-729-120-28	TRANSISTOR 2SC2412K	
Q361	8-729-120-28	TRANSISTOR 2SC2412K	
Q362	8-729-120-28	TRANSISTOR 2SC2412K	
Q501	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q502	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q503	8-729-027-56	TRANSISTOR DTC143JKA (US, CND, SP, JE)	
Q504	8-729-027-56	TRANSISTOR DTC143JKA (US, CND, SP, JE)	
Q570	8-729-921-93	TRANSISTOR 2SB1182F5-QR	
Q571	8-729-027-50	TRANSISTOR DTC123JKA-T146	

< RESISTOR >

R4	1-216-025-00	METAL CHIP	100	5%	1/10W
R5	1-216-097-00	METAL CHIP	100K	5%	1/10W
R6	1-216-097-00	METAL CHIP	100K	5%	1/10W
R9	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R10	1-216-073-00	METAL CHIP	10K	5%	1/10W
R11	1-216-121-00	METAL CHIP	1M	5%	1/10W
R13	1-216-073-00	METAL CHIP	10K	5%	1/10W
R14	1-216-105-00	METAL CHIP	220K	5%	1/10W
R15	1-216-073-00	METAL CHIP	10K	5%	1/10W
R16	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R17	1-216-105-00	METAL CHIP	220K	5%	1/10W
R18	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R19	1-216-033-00	METAL CHIP	220	5%	1/10W
R20	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R21	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R22	1-216-029-00	METAL CHIP	150	5%	1/10W
R40	1-216-017-00	METAL CHIP	47	5%	1/10W
R41	1-216-097-00	METAL CHIP	100K	5%	1/10W
R42	1-216-089-00	METAL CHIP	47K	5%	1/10W
R43	1-216-089-00	METAL CHIP	47K	5%	1/10W
R44	1-216-049-00	METAL CHIP	1K	5%	1/10W
R50	1-216-085-00	METAL CHIP	33K	5%	1/10W
R51	1-216-073-00	METAL CHIP	10K	5%	1/10W
R52	1-216-073-00	METAL CHIP	10K	5%	1/10W
R53	1-216-097-00	METAL CHIP	100K	5%	1/10W
R60	1-216-033-00	METAL CHIP	220	5%	1/10W
R61	1-216-049-00	METAL CHIP	1K	5%	1/10W
R62	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R63	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R64	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R65	1-216-025-00	METAL CHIP	100	5%	1/10W
R66	1-216-025-00	METAL CHIP	100	5%	1/10W
R67	1-216-025-00	METAL CHIP	100	5%	1/10W
R70	1-216-081-00	METAL CHIP	22K	5%	1/10W (US, CND, SP, JE)
R71	1-216-001-00	METAL CHIP	10	5%	1/10W (US, CND, SP, JE)
R101	1-216-073-00	METAL CHIP	10K	5%	1/10W
R102	1-216-073-00	METAL CHIP	10K	5%	1/10W
R103	1-216-073-00	METAL CHIP	10K	5%	1/10W
R104	1-216-049-00	METAL CHIP	1K	5%	1/10W
R105	1-216-077-00	METAL CHIP	15K	5%	1/10W
R106	1-216-073-00	METAL CHIP	10K	5%	1/10W
R107	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R110	1-216-081-00	METAL CHIP	22K	5%	1/10W
R111	1-216-081-00	METAL CHIP	22K	5%	1/10W
R120	1-216-097-00	METAL CHIP	100K	5%	1/10W
R121	1-216-097-00	METAL CHIP	100K	5%	1/10W
R124	1-216-093-00	METAL CHIP	68K	5%	1/10W
R125	1-216-073-00	METAL CHIP	10K	5%	1/10W
R126	1-216-073-00	METAL CHIP	10K	5%	1/10W
R127	1-216-073-00	METAL CHIP	10K	5%	1/10W
R128	1-216-097-00	METAL CHIP	100K	5%	1/10W
R150	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R151	1-216-009-00	METAL CHIP	22	5%	1/10W
R152	1-216-025-00	METAL CHIP	100	5%	1/10W
R153	1-216-025-00	METAL CHIP	100	5%	1/10W
R154	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-049-00	METAL CHIP	1K	5%	1/10W
R205	1-216-077-00	METAL CHIP	15K	5%	1/10W
R206	1-216-073-00	METAL CHIP	10K	5%	1/10W
R207	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R210	1-216-081-00	METAL CHIP	22K	5%	1/10W
R211	1-216-081-00	METAL CHIP	22K	5%	1/10W
R220	1-216-097-00	METAL CHIP	100K	5%	1/10W
R221	1-216-097-00	METAL CHIP	100K	5%	1/10W

SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description			Remark
R224	1-216-093-00	METAL CHIP	68K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	1K	5%	1/10W
R227	1-216-073-00	METAL CHIP	10K	5%	1/10W
R228	1-216-097-00	METAL CHIP	100K	5%	1/10W
R250	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R251	1-216-009-00	METAL CHIP	22	5%	1/10W
R252	1-216-025-00	METAL CHIP	100	5%	1/10W
R253	1-216-025-00	METAL CHIP	100	5%	1/10W
R254	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R301	1-216-089-00	METAL CHIP	47K	5%	1/10W
R302	1-216-049-00	METAL CHIP	1K	5%	1/10W
R303	1-216-109-00	METAL CHIP	330K	5%	1/10W
R304	1-216-113-00	METAL CHIP	470K	5%	1/10W
R305	1-216-025-00	METAL CHIP	100	5%	1/10W
R306	1-216-025-00	METAL CHIP	100	5%	1/10W
R308	1-216-689-11	METAL CHIP	39K	5%	1/10W
R310	1-216-049-00	METAL CHIP	1K	5%	1/10W
R311	1-216-097-00	METAL CHIP	100K	5%	1/10W
R312	1-216-041-00	METAL CHIP	470	5%	1/10W
R313	1-216-097-00	METAL CHIP	100K	5%	1/10W
R320	1-216-049-00	METAL CHIP	1K	5%	1/10W
R321	1-216-097-00	METAL CHIP	100K	5%	1/10W
R322	1-216-081-00	METAL CHIP	22K	5%	1/10W
R323	1-216-097-00	METAL CHIP	100K	5%	1/10W
R330	1-216-073-00	METAL CHIP	10K	5%	1/10W
R331	1-216-091-00	METAL CHIP	56K	5%	1/10W
R332	1-216-097-00	METAL CHIP	100K	5%	1/10W
R340	1-216-049-00	METAL CHIP	1K	5%	1/10W
R341	1-216-097-00	METAL CHIP	100K	5%	1/10W
R342	1-216-049-00	METAL CHIP	1K	5%	1/10W
R360	1-216-097-00	METAL CHIP	100K	5%	1/10W
R361	1-216-073-00	METAL CHIP	10K	5%	1/10W
R362	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R363	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R365	1-216-073-00	METAL CHIP	10K	5%	1/10W
R366	1-216-097-00	METAL CHIP	100K	5%	1/10W
R367	1-216-097-00	METAL CHIP	100K	5%	1/10W
R368	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R369	1-216-089-00	METAL CHIP	47K	5%	1/10W
R370	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R371	1-216-077-00	METAL CHIP	10K	5%	1/10W
R372	1-216-075-00	METAL CHIP	4.7K	5%	1/10W
R373	1-216-097-00	METAL CHIP	100K	5%	1/10W
R375	1-216-105-00	METAL CHIP	220K	5%	1/10W
R376	1-216-081-00	METAL CHIP	22K	5%	1/10W
R377	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R378	1-216-081-00	METAL CHIP	22K	5%	1/10W
R379	1-216-081-00	METAL CHIP	22K	5%	1/10W
R390	1-216-121-00	METAL CHIP	1M	5%	1/10W
R391	1-216-113-00	METAL CHIP	470K	5%	1/10W
R392	1-216-113-00	METAL CHIP	470K	5%	1/10W
R393	1-216-113-00	METAL CHIP	470K	5%	1/10W
R394	1-216-025-00	METAL CHIP	100	5%	1/10W
R395	1-216-081-00	METAL CHIP	22K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R504	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R506	1-216-025-00	METAL CHIP	100	5%	1/10W
R507	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R508	1-216-073-00	METAL CHIP	10K	5%	1/10W
R509	1-216-093-00	METAL CHIP	68K	5%	1/10W
R510	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R511	1-216-105-00	METAL CHIP	220K	5%	1/10W
R512	1-216-105-00	METAL CHIP	220K	5%	1/10W
R514	1-216-049-00	METAL CHIP	1K	5%	1/10W
R515	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R516	1-216-089-00	METAL CHIP	47K	5%	1/10W
R517	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R518	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R519	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R520	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R521	1-216-077-00	METAL CHIP	15K	5%	1/10W
R522	1-216-037-00	METAL CHIP	330	5%	1/10W
R523	1-216-025-00	METAL CHIP	100	5%	1/10W
R524	1-216-085-00	METAL CHIP	33K	5%	1/10W
R525	1-216-077-00	METAL CHIP	15K	5%	1/10W
R526	1-216-073-00	METAL CHIP	10K	5%	1/10W
R528	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R529	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R530	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R531	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R532	1-216-097-00	METAL CHIP	100K	5%	1/10W
R533	1-216-089-00	METAL CHIP	47K	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-109-00	METAL CHIP	330K	5%	1/10W
R536	1-216-081-00	METAL CHIP	22K	5%	1/10W
R537	1-216-091-00	METAL CHIP	56K	5%	1/10W
R538	1-216-121-00	METAL CHIP	1M	5%	1/10W
R539	1-216-073-00	METAL CHIP	10K	5%	1/10W
R540	1-216-073-00	METAL CHIP	10K	5%	1/10W
R542	1-216-049-00	METAL CHIP	1K	5%	1/10W
R543	1-216-041-00	METAL CHIP	470	5%	1/10W
R544	1-216-041-00	METAL CHIP	470	5%	1/10W
R545	1-216-041-00	METAL CHIP	470	5%	1/10W
R546	1-216-041-00	METAL CHIP	470	5%	1/10W

MAIN

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description			Remark
R547	1-216-041-00	METAL CHIP	470	5%	1/10W
R548	1-216-041-00	METAL CHIP	470	5%	1/10W
R549	1-216 073 00	METAL CHIP	10K	5%	1/10W
R551	1-216-097-00	METAL CHIP	100K	5%	1/10W
R552	1-216-081-00	METAL CHIP	22K	5%	1/10W
R553	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R554	1-216-049-00	METAL CHIP	1K	5%	1/10W
R555	1-216-113-00	METAL CHIP	470K	5%	1/10W
R556	1-216-049-00	METAL CHIP	1K	5%	1/10W
R557	1-216-025-00	METAL CHIP	100	5%	1/10W
R570	1-216-065-00	METAL CHIP	4.7K	5%	1/10W(US, CND, SP, JE)
R571	1-216-081-00	METAL CHIP	22K	5%	1/10W(US, CND, SP, JE)
R572	1-216-089-00	METAL CHIP	47K	5%	1/10W(US, CND, SP, JE)
R573	1-216-073-00	METAL CHIP	10K	5%	1/10W(US, CND, SP, JE)
R584	1-216-097-00	METAL CHIP	100K	5%	1/10W
R585	1-216-089-00	METAL CHIP	47K	5%	1/10W
R586	1-216-025-00	METAL CHIP	100	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-223-587-11	RES, ADJ, CARBON 22K			
RV502	1-223-586-11	RES, ADJ, CARBON 10K			
RV503	1-223-586-11	RES, ADJ, CARBON 10K			
RV504	1-223-586-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S301	1-572-949-11	SWITCH, SLIDE (MEGA BASS)			
S501	1-570-953-11	SWITCH, PUSH (1 KEY) (CD OPEN)			
		< TRANSFORMER >			
T1	1-404-790-11	TRANSFORMER, IF			
T40	1-449-138-11	TRANSFORMER, DC-DC CONVERTER			
		< VARIABLE RESISTOR >			
VR301	1-225-278-11	RES, VAR (VOLUME)			
		< VIBRATOR >			
X50	1-567-769-11	VIBRATOR, CRYSTAL (75KHz)			
X501	1-760-793-11	VIBRATOR, CERAMIC (16MHz)			
**********					
		MISCELLANEOUS			
		**********			
102	1-948-418-21	HARNESS			
⚠107	8-848-289-31	OPTICAL PICK-UP (KSS-331A)			
ANT1	1-501-362-11	ANTENNA, TELESCOPIC (FM)			
M570	X-2625-171-2	MOTOR ASSY, (SLED)			
M571	X-2625-485-1	MOTOR ASSY (MS), T.T. (SPINDLE)			

Ref. No.	Part No.	Description	Remark
SP101	1-505-311-11	SPEAKER (L)	
SP201	1-505-311-11	SPEAKER (R)	
S570	1-570-771-11	SWITCH (LIMIT)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-105-19	TAPPING +P 2X8 NON-SLIT	
#3	7-627-852-17	+P 1.7X4	
#4	7-627-852-18	SCREW, PRECISION +P 1.7X4 TYPE3	
#5	7-685-104-19	SCREW (2X6), TAPPING (B)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
⚠	1-467-006-11	ADAPTOR, AC (AC-104) (US, CND)	
⚠	1-467-173-11	ADAPTOR, AC (AC-104) (AEP, IT, SP)	
⚠	1-467-174-21	ADAPTOR, AC (AC-104) (Tourist)	
	1-505-267-11	HEADPHONE (TRH-11) (EXCEPT US)	
⚠	1-569-008-11	ADAPTER, CONVERSION 2P (SP)	
*	3-324-066-01	SHEET, PROTECTION	
	3-810-942-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN) (US, CND, AEP, UK, IT)	
	3-810-942-21	MANUAL, INSTRUCTION (SPANISH, DUTCH, SWEDISH, PORTUGUESE) (AEP)	
	3-810-942-41	MANUAL, INSTRUCTION (JAPANESE, ENGLISH, CHINESE, KOREAN) (SP, JE)	
*	3-935-489-01	INDIVIDUAL CARTON	
*	4-941-548-01	LABEL, CLASS (1) (AEP, UK, IT)	
	8-953-342-91	HEADPHONE MDR-24//K SET (US)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ICF-CD1000

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
Singapore Model
Tourist Model

SUPPLEMENT-1

File this supplement with the service manual.

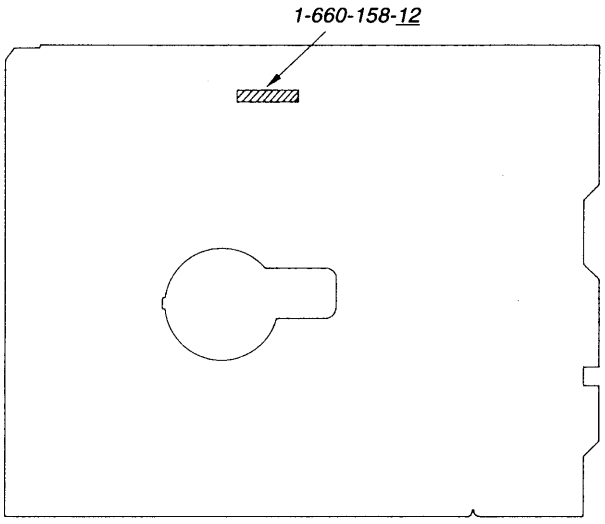
Subject: Change of the Boards

(ECN-TR600669)

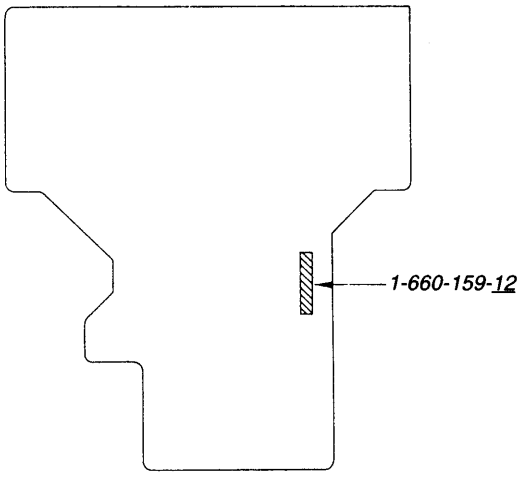
The boards have been modified in the middle of production.
This supplement-1 contains the printed wiring board, the schematic diagram and the electrical parts list for the new type.

• **New/Former Discrimnation**

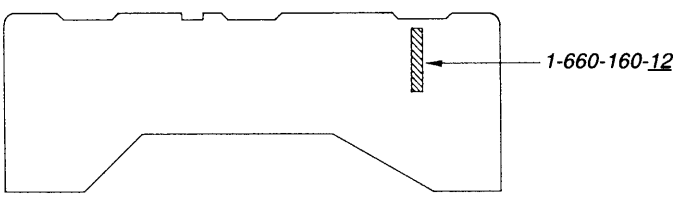
[MAIN BOARD] (Component Side)



[LCD BOARD] (Component Side)



[KEY BOARD] (Component Side)



KEY **LCD**

1. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description		Remark
*	1-660-160-11	KEY BOARD		
		*********		
		< CONNECTOR >		
CNP302	1-778-033-11	CONNECTOR, FFC/FPC		
		< SWITCH >		
S401	1-553-856-00	SWITCH, KEYBOARD (⏮) (TUNING TIME SET-)		
S402	1-553-856-00	SWITCH, KEYBOARD (⏭) (TUNING TIME SET+)		
S403	1-553-856-00	SWITCH, KEYBOARD (5)		
S404	1-553-856-00	SWITCH, KEYBOARD (BAND WAKE UP TRACK)		
S405	1-553-856-00	SWITCH, KEYBOARD (SNOOZE)		
S406	1-553-856-00	SWITCH, KEYBOARD (4)		
S407	1-553-856-00	SWITCH, KEYBOARD (RADIO SLEEP)		
S408	1-553-856-00	SWITCH, KEYBOARD (CD▶❚❚)		
S409	1-553-856-00	SWITCH, KEYBOARD (3)		
S410	1-553-856-00	SWITCH, KEYBOARD (ALARM TIME)		
S411	1-553-856-00	SWITCH, KEYBOARD (ALARM MODE)		
S412	1-553-856-00	SWITCH, KEYBOARD (2)		
S413	1-553-856-00	SWITCH, KEYBOARD (CLOCK/TRACK ENTER)		
S414	1-553-856-00	SWITCH, KEYBOARD (OFF)		
S415	1-553-856-00	SWITCH, KEYBOARD (1)		
**********				
*	A-3662-509-A	LCD BOARD, COMPLETE (US, CND)		
*	A-3662-527-A	LCD BOARD, COMPLETE (AEP, UK, IT)		
*	A-3662-518-A	LCD BOARD, COMPLETE (SP, JE)		
		**********		
	3-934-430-01	HOLDER (LCD)		
		< CAPACITOR >		
C401	1-164-005-11	CERAMIC CHIP	0.47uF	25V
C402	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C403	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C404	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C405	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C406	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C407	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C408	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C409	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C410	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C411	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C412	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C413	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C414	1-107-682-11	CERAMIC CHIP	1uF 10%	16V
C415	1-104-847-11	TANTAL CHIP	22uF 20%	4V
C416	1-163-031-11	CERAMIC CHIP	0.01uF	50V
C417	1-163-239-11	CERAMIC CHIP	33PF 5%	50V
C418	1-163-239-11	CERAMIC CHIP	33PF 5%	50V
C419	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C420	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C421	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C422	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C423	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C424	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C425	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C426	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C427	1-163-031-11	CERAMIC CHIP	0.01uF	50V
C428	1-104-847-11	TANTAL CHIP	22uF 20%	4V
C429	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C430	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C431	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C432	1-126-157-11	ELECT	10uF 20%	16V
C433	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C434	1-135-091-00	TANTAL CHIP	1uF 20%	16V
C435	1-135-091-00	TANTAL CHIP	1uF 20%	16V
C436	1-163-009-11	CERAMIC CHIP	0.001uF 10%	50V
C437	1-163-031-11	CERAMIC CHIP	0.01uF	50V
C438	1-163-251-11	CERAMIC CHIP	100PF 5%	50V
C439	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C440	1-124-576-11	ELECT	220uF 20%	4V
C441	1-135-155-21	TANTAL CHIP	1uF 20%	16V

LCD

Ref.No.	Part No.	Description	Remark
		< CONNECTOR >	
CNP401	1-778-032-11	CONNECTOR, FFC/FPC	
CNP402	1-778-033-11	CONNECTOR, FFC/FPC	
		< DIODE >	
D401	8-719-058-07	DIODE SLR-342MC3F	
D402	8-719-058-07	DIODE SLR-342MC3F	
D403	8-719-975-40	DIODE RB411D	
D404	8-719-975-40	DIODE RB411D	
D405	8-719-914-43	DIODE DAN202K	
D406	8-719-914-43	DIODE DAN202K	
D407	8-719-914-43	DIODE DAN202K	
D408	8-719-056-76	DIODE UDZ-TE-17-3.6B	
D409	8-719-914-43	DIODE DAN202K	
		< IC >	
IC401	8-759-454-65	IC uPD753108GC-027-AB8	
IC402	8-759-395-07	IC RH5VL20AA-T1	
IC403	8-759-425-02	IC RH5RL34AA-T1	
IC404	8-759-395-07	IC RH5VL20AA-T1	
		< CHIP CONDUCTOR >	
JC401	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC402	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC403	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC404	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC405	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC406	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC407	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC408	1-216-295-00	CONDUCTOR, CHIP (2012)	
		< COIL >	
L401	1-410-526-11	INDUCTOR 10uH	
		< LIQUID CRYSTAL DISPLAY >	
LCD1	1-801-252-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< TRANSISTOR >	
Q401	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q402	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q403	8-729-120-28	TRANSISTOR 2SC2412K	
		< RESISTOR >	
R420	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R421	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R422	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R423	1-216-113-00	METAL CHIP 470K 5% 1/10W	

Ref.No.	Part No.	Description	Remark
R424	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R425	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R426	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R427	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R428	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R429	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R430	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R431	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R432	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R433	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R434	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R435	1-216-025-00	METAL CHIP 100 5% 1/10W	
R436	1-216-025-00	METAL CHIP 100 5% 1/10W	
R437	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R438	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R439	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R440	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R441	1-216-025-00	METAL CHIP 100 5% 1/10W	
R442	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R443	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R444	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R445	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R446	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R447	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R448	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R449	1-216-041-00	METAL CHIP 470 5% 1/10W	
R450	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R451	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R453	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R454	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R455	1-216-021-00	METAL CHIP 68 5% 1/10W	
R456	1-216-021-00	METAL CHIP 68 5% 1/10W	
R457	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R458	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R459	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R460	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R461	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R462	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R463	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R464	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R465	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R466	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R491	1-216-073-00	METAL CHIP 10K 5% 1/10W (AEP,UK,IT)	
R492	1-216-073-00	METAL CHIP 10K 5% 1/10W (SP,JE)	
		< SWITCH >	
S416	1-553-856-00	SWITCH, KEYBOARD (D.S.T. SUMMER T.)	
S417	1-553-856-00	SWITCH, KEYBOARD (WORLD/LOCAL)	

LCD MAIN

Ref.No.	Part No.	Description	Remark
S418	1-571-958-11	SWITCH, PUSH (1 KEY) (OPEN MAIN)	
		< FLAT CABLE >	
W401	1-777-083-11	CORD, CONNECTION	
W402	1-777-084-11	CORD, CONNECTION	
		< VIBRATOR >	
X401	1-760-641-21	VIBRATOR, CERAMIC (4.19MHz)	
X402	1-567-098-41	VIBRATOR, CRYSTAL (32KHz)	
		**********	
*	A-3662-504-A	MAIN BOARD, COMPLETE (US,CND)	
*	A-3662-525-A	MAIN BOARD, COMPLETE (AEP,UK,IT)	
*	A-3662-516-A	MAIN BOARD, COMPLETE (SP,JE)	
		**********	
*	3-934-440-01	TERMINAL (LITHIUM/+)	
*	3-934-441-01	TERMINAL (LITHIUM/-)	
*	3-934-443-01	CONTACT (ANT)	
	3-934-445-01	PLATE (A), SHIELD (US,CND)	
		< CAPACITOR >	
C3	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C4	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C5	1-163-222-11	CERAMIC CHIP 5PF 5% 50V (SP,JE)	
C6	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C7	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C8	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C9	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C10	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C13	1-163-091-00	CERAMIC CHIP 8PF 50V	
C14	1-163-227-11	CERAMIC CHIP 10PF 50V	
C15	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C16	1-163-091-00	CERAMIC CHIP 8PF 0.25PF 50V	
C17	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C18	1-163-129-00	CERAMIC CHIP 330PF 5% 50V	
C19	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C20	1-126-783-11	ELECT 22uF 20% 10V	
C21	1-124-257-00	ELECT 2.2uF 20% 50V	
C22	1-126-783-11	ELECT 22uF 20% 10V	
C23	1-124-465-00	ELECT 0.47uF 20% 50V	
C24	1-126-163-11	ELECT 4.7uF 20% 50V	
C25	1-164-346-11	CERAMIC CHIP 1uF 16V	
C27	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C28	1-126-163-11	ELECT 4.7uF 20% 50V	
C29	1-126-301-11	ELECT 1uF 20% 50V	
C30	1-126-514-11	ELECT 22uF 20% 10V	
C31	1-128-110-11	ELECT 47uF 20% 4V	
C32	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C33	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	

MAIN

Ref.No.	Part No.	Description	Remark
C34	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C35	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C40	1-104-396-11	ELECT 10uF 20% 16V	
C41	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C42	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C43	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C44	1-126-301-11	ELECT 1uF 20% 50V	
C50	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C51	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C52	1-164-336-11	CERAMIC CHIP 0.33uF 25V	
C53	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C60	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C61	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C62	1-126-783-11	ELECT 22uF 20% 10V	
C63	1-126-163-11	ELECT 4.7uF 20% 50V	
C64	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C65	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C66	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C67	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C68	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C69	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C70	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C101	1-163-010-11	CERAMIC CHIP 0.0012uF 10% 50V	
C102	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C103	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C104	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C105	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C110	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C111	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C122	1-163-227-11	CERAMIC CHIP 10PF 50V	
C123	1-163-227-11	CERAMIC CHIP 10PF 50V	
C124	1-126-163-11	ELECT 4.7uF 20% 50V	
C150	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C151	1-126-513-11	ELECT 47uF 20% 6.3V	
C152	1-128-150-11	ELECT 820uF 20% 4V	
C153	1-126-163-11	ELECT 4.7uF 20% 50V	
C201	1-163-010-11	CERAMIC CHIP 0.0012uF 10% 50V	
C202	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C203	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C204	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C205	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C210	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C211	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C222	1-163-227-11	CERAMIC CHIP 10PF 50V	
C223	1-163-227-11	CERAMIC CHIP 10PF 50V	
C224	1-126-163-11	ELECT 4.7uF 20% 50V	
C250	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C251	1-126-513-11	ELECT 47uF 20% 6.3V	

MAIN

Ref.No.	Part No.	Description	Remark
C252	1-128-150-11	ELECT 820uF 20% 4V	
C253	1-126-163-11	ELECT 4.7uF 20% 50V	
C301	1-124-427-11	ELECT 470uF 20% 10V	
C302	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C303	1-124-234-00	ELECT 22uF 20% 16V	
C304	1-126-785-11	ELECT 47uF 20% 10V	
C305	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C308	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C310	1-126-163-11	ELECT 4.7uF 20% 50V	
C311	1-126-608-11	ELECT 330uF 20% 2V	
C312	1-104-666-11	ELECT 220uF 20% 10V	
C313	1-126-608-11	ELECT 330uF 20% 2V	
C314	1-126-163-11	ELECT 4.7uF 20% 25V	
C315	1-126-246-11	CERAMIC CHIP 220uF 20% 4V	
C320	1-126-163-11	ELECT 4.7uF 20% 50V	
C321	1-104-396-11	ELECT 10uF 20% 50V	
C322	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C323	1-164-346-11	CERAMIC CHIP 1uF 16V	
C329	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C330	1-126-163-11	ELECT 4.7uF 20% 50V	
C331	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C332	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C333	1-124-472-11	ELECT 470uF 20% 10V	
C334	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C340	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C341	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C350	1-104-483-11	ELECT 470uF 20% 4V	
C360	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C361	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C362	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C363	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C364	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C365	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C366	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C367	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C368	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C369	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C370	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V	
C371	1-163-227-11	CERAMIC CHIP 10PF 50V	
C372	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C373	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C374	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C390	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C391	1-126-154-11	ELECT 47uF 20% 6.3V	
C501	1-126-513-11	ELECT 47uF 20% 6.3V	
C502	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C503	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
C504	1-163-085-00	CERAMIC CHIP 2PF 50V	
C505	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C506	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C507	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C508	1-126-513-11	ELECT 47uF 20% 6.3V	
C509	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C510	1-104-908-11	TANTAL CHIP 47uF 20% 4V	
C511	1-135-151-21	TANTALUM CHIP 4.7uF 20% 4V	
C513	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C514	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C515	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
C516	1-124-257-00	ELECT 2.2uF 20% 50V	
C517	1-163-129-00	CERAMIC CHIP 330PF 5% 50V	
C518	1-104-396-11	ELECT 10uF 20% 50V	
C519	1-124-257-00	ELECT 2.2uF 20% 50V	
C520	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C521	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C522	1-124-584-00	ELECT 100uF 20% 10V	
C523	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C524	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C525	1-124-584-00	ELECT 100uF 20% 10V	
C526	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C527	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C528	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C529	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C530	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C531	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C532	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C533	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C534	1-126-783-11	ELECT 22uF 20% 10V	
C535	1-164-346-11	CERAMIC CHIP 1uF 16V	
C536	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C537	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C538	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C539	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C540	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C541	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C542	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C543	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C545	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C548	1-104-908-11	TANTAL CHIP 47uF 20% 4V	
C549	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C551	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C552	1-104-847-11	TANTAL CHIP 22uF 20% 4V	
C553	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C554	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C555	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C556	1-104-908-11	TANTAL CHIP 47uF 20% 4V	
C557	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C558	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C559	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C560	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C561	1-104-908-11	TANTAL CHIP 47uF 20% 4V	
C562	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C563	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C564	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C565	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C566	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C567	1-164-346-11	CERAMIC CHIP 1uF 16V	
C568	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C569	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C570	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C571	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C574	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C575	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C576	1-107-682-11	CERAMIC CHIP 1uF 10% 16V	
C577	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C580	1-124-635-00	ELECT 220uF 20% 6.3V	
C583	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C584	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C585	1-135-151-21	TANTAL CHIP 4.7uF 20% 4V	
C586	1-164-346-11	CERAMIC CHIP 1uF 16V	
C590	1-104-396-11	ELECT 10uF 20% 50V	
C591	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
CF1	1-577-072-21	FILTER, CERAMIC	
CF2	1-760-233-11	FILTER, CERAMIC	
CF3	1-760-234-11	FILTER, CERAMIC	
CNP301	1-778-124-11	CONNECTOR, FFC/FPC 22P	
CNP501	1-566-534-11	CONNECTOR, FPC (ZIF) 18P	
* CNP502	1-695-320-31	PIN, CONNECTOR (1.5MM) (SMD) 2P	
* CNP503	1-695-320-21	PIN, CONNECTOR (1.5MM) (SMD) 2P	
* CNP504	1-695-320-51	PIN, CONNECTOR (1.5MM) (SMD) 2P	
CT1	1-141-304-21	CAP, TRIMMER 10PF	
CT2	1-141-304-21	CAP, TRIMMER 10PF	
D1	8-713-100-11	DIODE 1T362 (US,CND,AEP,UK,IT)	
D1	8-719-002-81	DIODE 1T363 (SP,JE)	
D2	8-713-100-11	DIODE 1T362 (US,CND,AEP,UK,IT)	
D2	8-719-002-81	DIODE 1T363 (SP,JE)	
D3	8-719-980-71	DIODE SVC342L-V	
D4	8-719-800-76	DIODE 1SS226	

MAIN

Ref.No.	Part No.	Description	Remark
D6	8-719-056-76	DIODE UDZ-TE-17-3.6B	
D7	8-719-800-76	DIODE 1SS226	
D40	8-719-978-61	DIODE DTZ-TT11-13B	
D41	8-719-914-43	DIODE DAN202K	
D301	8-719-914-43	DIODE DAN202K	
D302	8-719-914-43	DIODE DAN202K	
D303	8-719-914-43	DIODE DAN202K	
D304	8-719-914-43	DIODE DAN202K	
D305	8-719-914-43	DIODE DAN202K	
D306	8-719-914-43	DIODE DAN202K	
D307	8-719-914-43	DIODE DAN202K	
D308	8-719-914-43	DIODE DAN202K	
D309	8-719-800-76	DIODE 1SS226	
D310	8-719-981-51	DIODE RB100A (SP,JE)	
D310	8-719-052-88	DIODE 1N4002 (US,CND,AEP,UK,IT)	
D550	8-719-975-40	DIODE RB411D	
D551	8-719-914-43	DIODE DAN202K	
IC1	8-752-062-48	IC CXA1238M-T6	
IC50	8-759-425-22	IC BU2614FS-E2	
IC101	8-759-208-50	IC TA7368P	
IC201	8-759-208-50	IC TA7368P	
IC301	8-759-075-55	IC BA10324AF-T1	
IC302	8-759-075-55	IC BA10324AF-T1	
IC501	8-759-335-59	IC BA6376K	
IC502	8-759-394-55	IC BU9312AKS	
IC503	8-759-395-06	IC RH5S04K	
IC504	8-759-395-05	IC BU5480T-E2	
IC570	8-759-193-04	IC BN5HG33AA-TL	
JC501	1-216-295-00	CONDUCTOR, CHIP (2012)	
J301	1-778-034-11	JACK (CD)	
J302	1-691-099-51	JACK,DC(POLARITY UNIFIED TYPE) (DC IN 6V)	
L1	1-428-292-11	COIL, AIR-CORE	
L2	1-406-546-11	COIL, AIR-CORE (US,CND,AEP,UK,IT)	
L2	1-406-545-11	COIL, AIR-CORE (SP,JE)	
L3	1-501-842-11	ANTENNA, FERRITE-ROD	
L4	1-406-485-11	COIL (OSC)	
L50	1-410-527-11	INDUCTOR 100uH	
L101	1-414-235-11	INDUCTOR, FERRITE BEAD	
L201	1-414-235-11	INDUCTOR, FERRITE BEAD	
L301	1-414-235-11	INDUCTOR, FERRITE BEAD	

Continued on page 19.

2. PRINTED WIRING BOARD – MAIN Section –

• Semiconductor Location

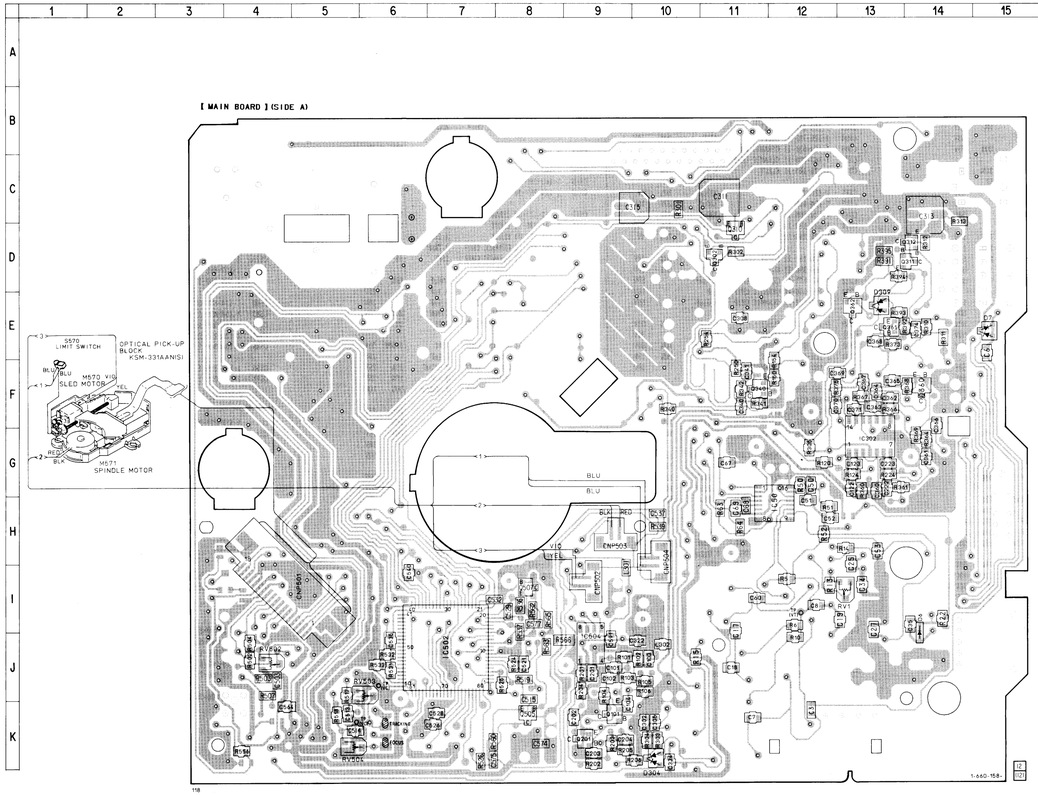
Ref. No.	Location	Ref. No.	Location
D1	J-21	Q40	D-23
D2	I-21	Q41	E-23
D3	J-21	Q50	H-20
D4	C-29	Q51	H-20
D6	J-14	Q101	K-9
D7	E-15	Q120	E-18
D40	E-23	Q150	D-18
D41	E-22	Q201	K-9
D301	D-25	Q220	F-19
D302	E-25	Q250	D-19
D303	C-25	Q301	C-22
D304	K-10	Q302	D-11
D305	E-26	Q303	F-26
D306	D-20	Q304	E-26
D307	D-20	Q305	E-26
D308	E-20	Q306	D-26
D309	E-13	Q307	K-22
D310	C-19	Q310	D-11
D550	E-28	Q311	D-14
D551	D-25	Q312	D-14
		Q320	H-23
IC1	I-20	Q340	F-11
IC50	H-12	Q360	F-14
IC101	E-21	Q361	E-13
IC201	E-22	Q362	E-13
IC301	K-23	Q501	H-29
IC302	G-13	Q502	D-25
IC501	J-28	Q505	K-8
IC502	J-7	Q506	J-26
IC503	F-28	Q507	I-8
IC504	J-9	Q570	F-26
IC570	E-26	Q571	E-27

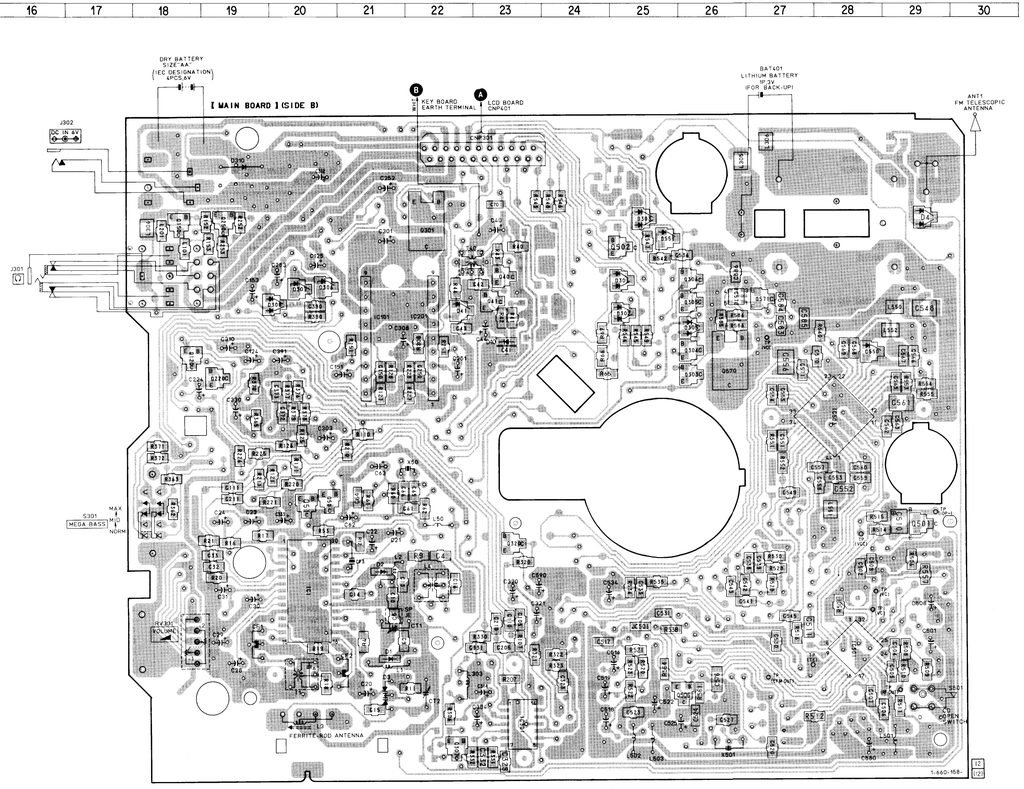
Note:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- △ : internal component.
- : Pattern from the side which enables seeing.

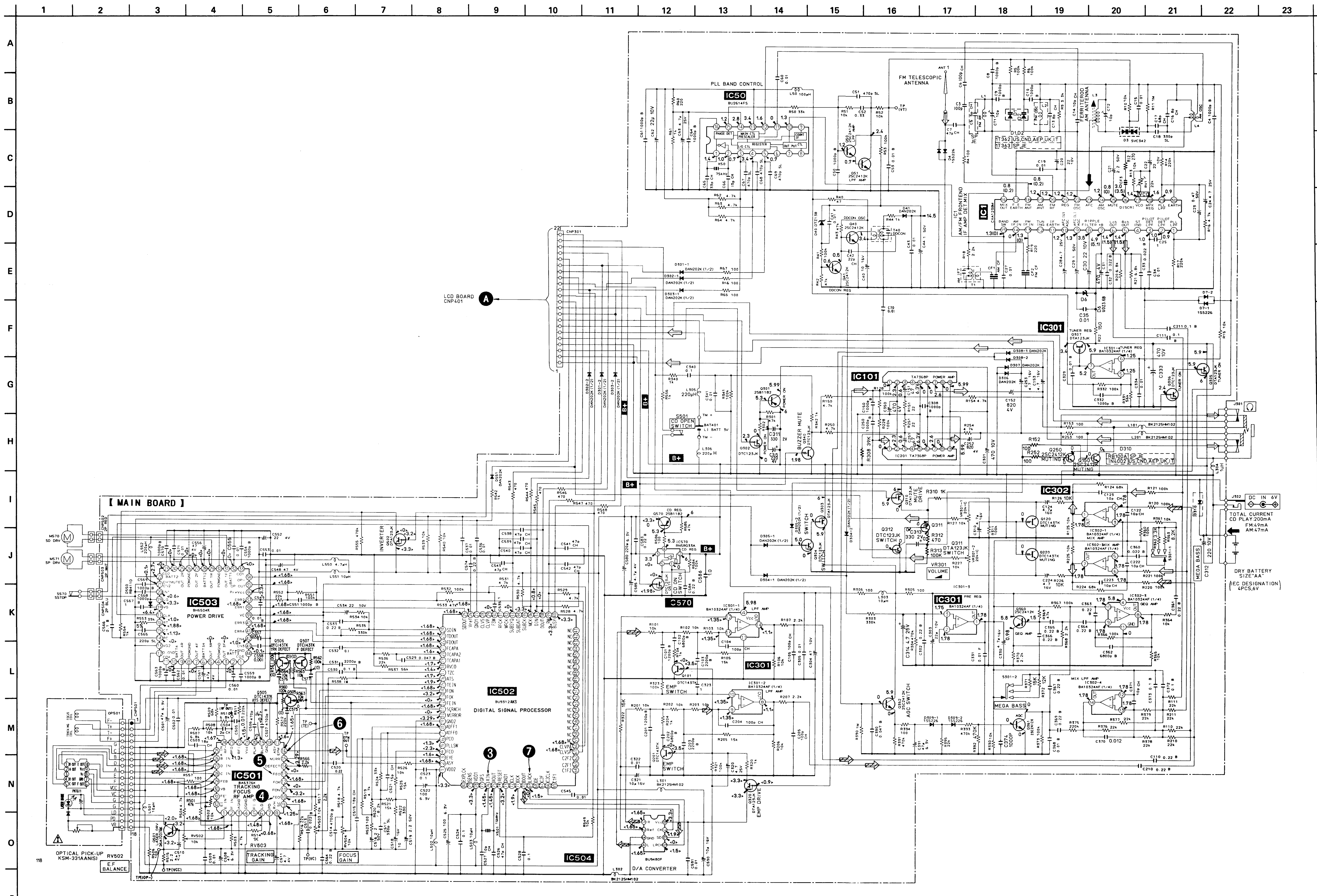
(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.





3. SCHEMATIC DIAGRAM – MAIN Section –



Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. ne les remplacer que par une piéce portant le numéro spécifié.

- B+ : B+ Line.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  < > : CD
- Voltages are taken with a VOM (10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : CD

Abbreviation
CND : Canadian model
IT : Italian model
SP : Singapore model
JE : Tourist model

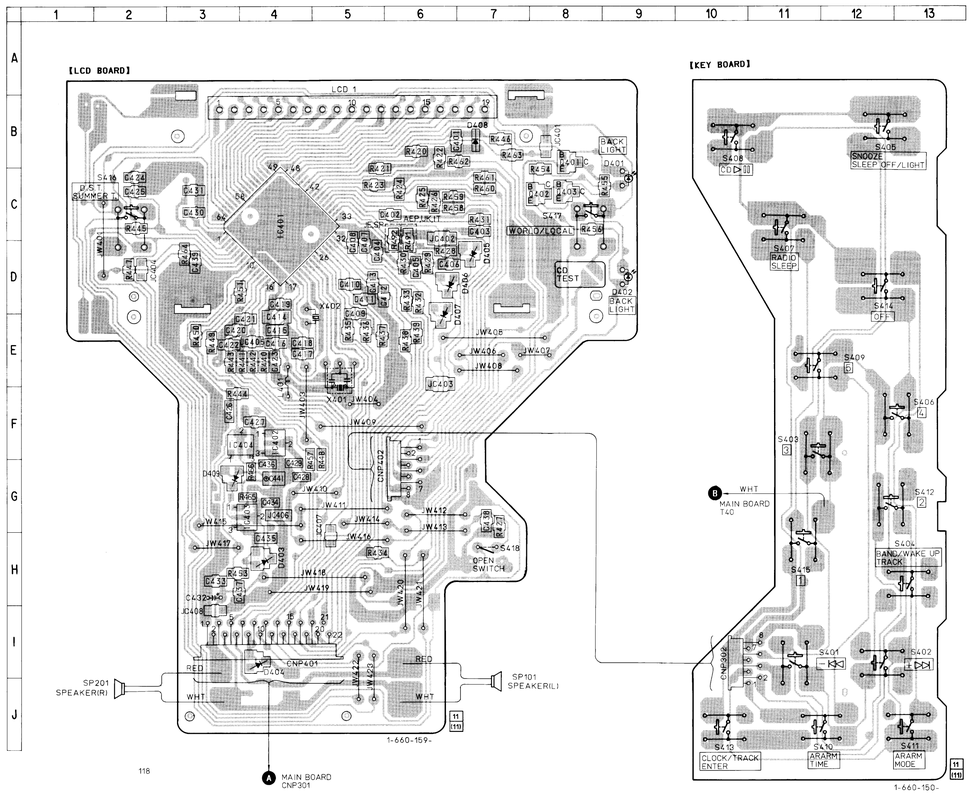
- **Semiconductor Location**

Ref. No.	Location
D401	B-9
D402	D-9
D403	H-4
D404	I-4
D405	D-7
D406	D-6
D407	E-6
D408	B-7
D409	G-3
IC401	C-4
IC402	F-4
IC403	G-4
IC404	F-4
Q401	B-8
Q402	C-8
Q403	C-8

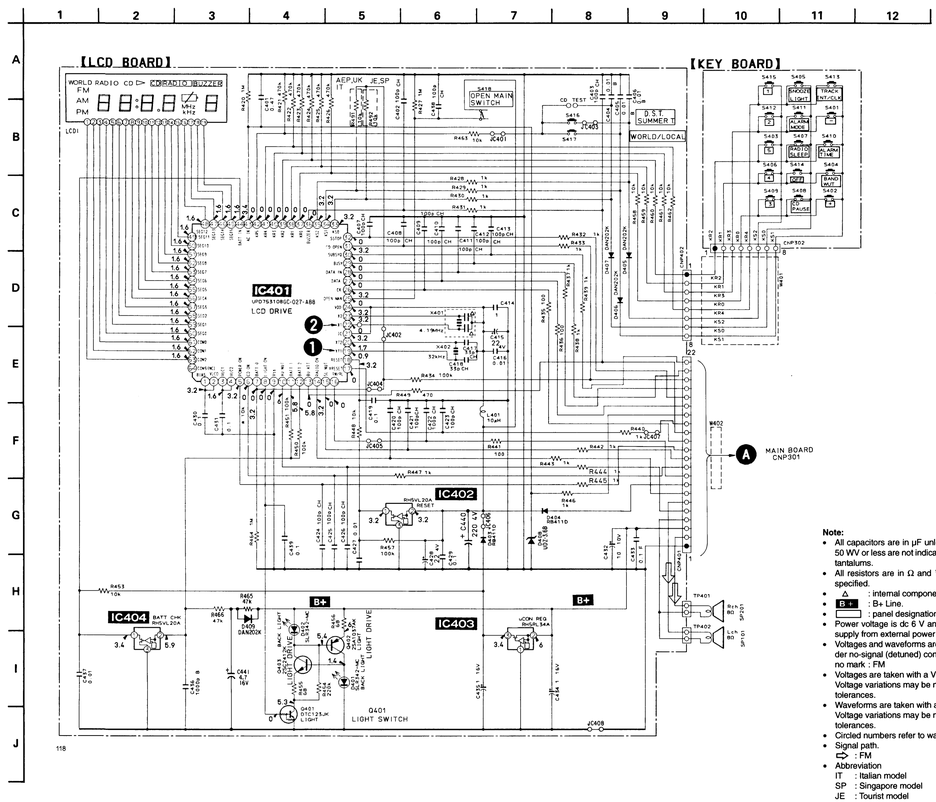
Note:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ▨▨▨ : Pattern from the side which enables seeing.

Abbreviation
IT : Italian model
SP : Singapore model
JE : Tourist model

4. PRINTED WIRING BOARDS – LCD Section –



5. SCHEMATIC DIAGRAM – LCD Section –



Note:
- All capacitors are in µF unless otherwise noted. pF: µµF. 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- □ : panel designation.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
- Abbreviation
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

Continued from page 6.

Ref. No.	Part No.	Description		Remark
L302	1-414-235-11	INDUCTOR, FERRITE BEAD		
L303	1-410-526-11	INDUCTOR	10uH	
L304	1-412-052-21	INDUCTOR CHIP	1uH	
L305	1-412-066-21	INDUCTOR CHIP	220uH	
L306	1-412-066-21	INDUCTOR CHIP	220uH	
L501	1-410-526-11	INDUCTOR	10uH	
L502	1-410-526-11	INDUCTOR	10uH	
L503	1-410-526-11	INDUCTOR	10uH	
L550	1-412-056-11	INDUCTOR CHIP	4.7uH	
L551	1-412-058-11	INDUCTOR CHIP	10uH	
L552	1-412-066-21	INDUCTOR CHIP	220uH	
		< TRANSISTOR >		
Q40	8-729-120-28	TRANSISTOR	2SC2412K	
Q41	8-729-120-28	TRANSISTOR	2SC2412K	
Q50	8-729-120-28	TRANSISTOR	2SC2412K	
Q51	8-729-120-28	TRANSISTOR	2SC2412K	
Q101	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q120	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q150	8-729-120-28	TRANSISTOR	2SC2412K	
Q201	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q220	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q250	8-729-120-28	TRANSISTOR	2SC2412K	
Q301	8-729-921-93	TRANSISTOR	2SB1182F5-QR	
Q302	8-729-027-50	TRANSISTOR	DTC123JKA-T146	
Q303	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q304	8-729-027-50	TRANSISTOR	DTC123JKA-T146	
Q305	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q306	8-729-027-50	TRANSISTOR	DTC123JKA-T146	
Q307	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q310	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q311	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q312	8-729-027-50	TRANSISTOR	DTC123JKA-T146	
Q320	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q340	8-729-027-50	TRANSISTOR	DTC123JKA-T146	
Q360	8-729-120-28	TRANSISTOR	2SC2412K	
Q361	8-729-120-28	TRANSISTOR	2SC2412K	
Q362	8-729-120-28	TRANSISTOR	2SC2412K	
Q501	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R	
Q502	8-729-027-29	TRANSISTOR	DTA123JKA-T146	
Q505	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q506	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q507	8-729-027-56	TRANSISTOR	DTC143TKA-T146	
Q570	8-729-921-93	TRANSISTOR	2SB1182F5-QR	
Q571	8-729-027-50	TRANSISTOR	DTC123JKA-T146	
		< RESISTOR >		
R4	1-216-025-00	METAL CHIP	100 5% 1/10W	
R5	1-216-097-00	METAL CHIP	100K 5% 1/10W	
R6	1-216-097-00	METAL CHIP	100K 5% 1/10W	
R9	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	
R10	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R11	1-216-121-00	METAL CHIP	1M 5% 1/10W	
R12	1-216-035-00	METAL CHIP	270 5% 1/10W	
R13	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R14	1-216-105-00	METAL CHIP	220K 5% 1/10W	
R15	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R16	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	
R17	1-216-105-00	METAL CHIP	220K 5% 1/10W	
R18	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R19	1-216-033-00	METAL CHIP	220 5% 1/10W	
R20	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	
R21	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	
R22	1-216-029-00	METAL CHIP	150 5% 1/10W	
R40	1-216-017-00	METAL CHIP	47 5% 1/10W	
R41	1-216-097-00	METAL CHIP	100K 5% 1/10W	
R42	1-216-089-00	METAL CHIP	47K 5% 1/10W	
R43	1-216-089-00	METAL CHIP	47K 5% 1/10W	
R44	1-216-049-00	METAL CHIP	1K 5% 1/10W	
R50	1-216-085-00	METAL CHIP	33K 5% 1/10W	
R51	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R52	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R53	1-216-097-00	METAL CHIP	100K 5% 1/10W	
R60	1-216-033-00	METAL CHIP	220 5% 1/10W	
R61	1-216-049-00	METAL CHIP	1K 5% 1/10W	
R62	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	
R63	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	
R64	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	
R65	1-216-025-00	METAL CHIP	100 5% 1/10W	
R66	1-216-025-00	METAL CHIP	100 5% 1/10W	
R67	1-216-025-00	METAL CHIP	100 5% 1/10W	
R101	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R102	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R103	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R104	1-216-049-00	METAL CHIP	1K 5% 1/10W	
R105	1-216-077-00	METAL CHIP	15K 5% 1/10W	
R106	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R107	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R110	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R111	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R120	1-216-097-00	METAL CHIP	100K 5% 1/10W	
R121	1-216-097-00	METAL CHIP	100K 5% 1/10W	
R124	1-216-093-00	METAL CHIP	68K 5% 1/10W	
R125	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R126	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R127	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R128	1-216-097-00	METAL CHIP	100K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R150	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R151	1-216-009-00	METAL CHIP	22	5%	1/10W
R152	1-216-025-00	METAL CHIP	100	5%	1/10W
R153	1-216-025-00	METAL CHIP	100	5%	1/10W
R154	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-049-00	METAL CHIP	1K	5%	1/10W
R205	1-216-077-00	METAL CHIP	15K	5%	1/10W
R206	1-216-073-00	METAL CHIP	10K	5%	1/10W
R207	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R210	1-216-081-00	METAL CHIP	22K	5%	1/10W
R211	1-216-081-00	METAL CHIP	22K	5%	1/10W
R220	1-216-097-00	METAL CHIP	100K	5%	1/10W
R221	1-216-097-00	METAL CHIP	100K	5%	1/10W
R224	1-216-093-00	METAL CHIP	68K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	1K	5%	1/10W
R227	1-216-073-00	METAL CHIP	10K	5%	1/10W
R228	1-216-097-00	METAL CHIP	100K	5%	1/10W
R250	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R251	1-216-009-00	METAL CHIP	22	5%	1/10W
R252	1-216-025-00	METAL CHIP	100	5%	1/10W
R253	1-216-025-00	METAL CHIP	100	5%	1/10W
R254	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R301	1-216-089-00	METAL CHIP	47K	5%	1/10W
R302	1-216-049-00	METAL CHIP	1K	5%	1/10W
R303	1-216-109-00	METAL CHIP	330K	5%	1/10W
R304	1-216-113-00	METAL CHIP	470K	5%	1/10W
R305	1-216-025-00	METAL CHIP	100	5%	1/10W
R306	1-216-025-00	METAL CHIP	100	5%	1/10W
R308	1-216-689-11	METAL CHIP	39K	5%	1/10W
R310	1-216-049-00	METAL CHIP	1K	5%	1/10W
R311	1-216-097-00	METAL CHIP	100K	5%	1/10W
R312	1-216-041-00	METAL CHIP	470	5%	1/10W
R313	1-216-097-00	METAL CHIP	100K	5%	1/10W
R320	1-216-049-00	METAL CHIP	1K	5%	1/10W
R321	1-216-097-00	METAL CHIP	100K	5%	1/10W
R322	1-216-081-00	METAL CHIP	22K	5%	1/10W
R323	1-216-097-00	METAL CHIP	100K	5%	1/10W
R330	1-216-073-00	METAL CHIP	10K	5%	1/10W
R331	1-216-091-00	METAL CHIP	56K	5%	1/10W
R332	1-216-097-00	METAL CHIP	100K	5%	1/10W
R340	1-216-049-00	METAL CHIP	1K	5%	1/10W
R341	1-216-097-00	METAL CHIP	100K	5%	1/10W
R342	1-216-049-00	METAL CHIP	1K	5%	1/10W
R360	1-216-097-00	METAL CHIP	100K	5%	1/10W
R361	1-216-073-00	METAL CHIP	10K	5%	1/10W
R362	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R363	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R365	1-216-073-00	METAL CHIP	10K	5%	1/10W
R366	1-216-097-00	METAL CHIP	100K	5%	1/10W
R367	1-216-097-00	METAL CHIP	100K	5%	1/10W
R368	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R369	1-216-089-00	METAL CHIP	47K	5%	1/10W
R370	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R371	1-216-077-00	METAL CHIP	10K	5%	1/10W
R372	1-216-075-00	METAL CHIP	4.7K	5%	1/10W
R373	1-216-097-00	METAL CHIP	100K	5%	1/10W
R375	1-216-105-00	METAL CHIP	220K	5%	1/10W
R376	1-216-081-00	METAL CHIP	22K	5%	1/10W
R377	1-216-081-00	METAL CHIP	22K	5%	1/10W
R378	1-216-081-00	METAL CHIP	22K	5%	1/10W
R379	1-216-081-00	METAL CHIP	22K	5%	1/10W
R390	1-216-121-00	METAL CHIP	1M	5%	1/10W
R391	1-216-113-00	METAL CHIP	470K	5%	1/10W
R392	1-216-113-00	METAL CHIP	470K	5%	1/10W
R393	1-216-113-00	METAL CHIP	470K	5%	1/10W
R394	1-216-025-00	METAL CHIP	100	5%	1/10W
R395	1-216-081-00	METAL CHIP	22K	5%	1/10W
R501	1-216-089-00	METAL CHIP	47K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R504	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R506	1-216-025-00	METAL CHIP	100	5%	1/10W
R507	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R508	1-216-073-00	METAL CHIP	10K	5%	1/10W
R509	1-216-093-00	METAL CHIP	68K	5%	1/10W
R510	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R511	1-216-105-00	METAL CHIP	220K	5%	1/10W
R512	1-216-105-00	METAL CHIP	220K	5%	1/10W
R514	1-216-049-00	METAL CHIP	1K	5%	1/10W
R515	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R516	1-216-081-00	METAL CHIP	22K	5%	1/10W
R517	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R518	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R519	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R520	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R521	1-216-077-00	METAL CHIP	15K	5%	1/10W
R522	1-216-037-00	METAL CHIP	330	5%	1/10W
R523	1-216-025-00	METAL CHIP	100	5%	1/10W
R524	1-216-085-00	METAL CHIP	33K	5%	1/10W
R525	1-216-077-00	METAL CHIP	15K	5%	1/10W
R526	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R528	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R529	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R530	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R531	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R532	1-216-097-00	METAL CHIP	100K	5%	1/10W
R533	1-216-089-00	METAL CHIP	47K	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-109-00	METAL CHIP	330K	5%	1/10W
R536	1-216-081-00	METAL CHIP	22K	5%	1/10W
R537	1-216-091-00	METAL CHIP	56K	5%	1/10W
R538	1-216-121-00	METAL CHIP	1M	5%	1/10W
R539	1-216-073-00	METAL CHIP	10K	5%	1/10W
R540	1-216-073-00	METAL CHIP	10K	5%	1/10W
R542	1-216-049-00	METAL CHIP	1K	5%	1/10W
R543	1-216-041-00	METAL CHIP	470	5%	1/10W
R544	1-216-041-00	METAL CHIP	470	5%	1/10W
R545	1-216-041-00	METAL CHIP	470	5%	1/10W
R546	1-216-041-00	METAL CHIP	470	5%	1/10W
R547	1-216-041-00	METAL CHIP	470	5%	1/10W
R548	1-216-041-00	METAL CHIP	470	5%	1/10W
R549	1-216-073-00	METAL CHIP	10K	5%	1/10W
R551	1-216-097-00	METAL CHIP	100K	5%	1/10W
R552	1-216-081-00	METAL CHIP	22K	5%	1/10W
R553	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R554	1-216-049-00	METAL CHIP	1K	5%	1/10W
R555	1-216-113-00	METAL CHIP	470K	5%	1/10W
R556	1-216-049-00	METAL CHIP	1K	5%	1/10W
R557	1-216-025-00	METAL CHIP	100	5%	1/10W
R560	1-216-097-00	METAL CHIP	100K	5%	1/10W
R561	1-216-097-00	METAL CHIP	100K	5%	1/10W
R562	1-216-097-00	METAL CHIP	100K	5%	1/10W
R563	1-216-073-00	METAL CHIP	10K	5%	1/10W
R564	1-216-073-00	METAL CHIP	10K	5%	1/10W
R565	1-216-073-00	METAL CHIP	10K	5%	1/10W
R566	1-216-206-00	METAL CHIP	2.2K	5%	1/10W
R584	1-216-097-00	METAL CHIP	100K	5%	1/10W
R585	1-216-089-00	METAL CHIP	47K	5%	1/10W
R586	1-216-025-00	METAL CHIP	100	5%	1/10W

< VARIABLE RESISTOR >

RV1	1-223-587-11	RES, ADJ, CARBON 22K
RV502	1-223-586-11	RES, ADJ, CARBON 10K
RV503	1-223-586-11	RES, ADJ, CARBON 10K
RV504	1-223-586-11	RES, ADJ, CARBON 10K

< SWITCH >

S301	1-572-949-11	SWITCH, SLIDE (MEGA BASS)
S501	1-570-953-11	SWITCH, PUSH (1 KEY) (CD OPEN)

Ref. No.	Part No.	Description	Remark

< TRANSFORMER >

T1	1-404-790-11	TRANSFORMER, IF
T40	1-449-138-11	TRANSFORMER, DC-DC CONVERTER

< VARIABLE RESISTOR >

VR301	1-225-278-11	RES, VAR (VOLUME)

< VIBRATOR >

X50	1-567-769-11	VIBRATOR, CRYSTAL (75KHz)
X501	1-760-793-11	VIBRATOR, CERAMIC (16MHz)

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.1	2001.07	Supplement-2, Correction-1 and -2 are included Replacing Ref. 9 and Ref. 15 each other (SPM-01017)
1.0	1998.03	Correction-2
	1997.11	Correction-1
	1997.07	Supplement-2
	1996.09	Supplement-1
	1996.04	New